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Thesis

A WORD STUDY OF CORRESPONDENCE IN A SELECTED AVIATION CONCERN FOR THE PURPOSE OF DETERMINING A GREGG SHORTHAND VOCABULARY TO AID IN SPECIALIZED SECRETARIAL TRAINING

Submitted by

Vincent John Ribaudo

(B. S. in Ed. Salem Teachers College, 1946)

In partial fulfillment of requirements for

the degree of Master of Education

1947

First Reader: Dr. John L. Rowe, Associate Professor of Business Education
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ACKNOWLEDGEMENT

To Mr. Steve Marshall of the Operations Department, and Mr. A. G. Thomas, Maintenance Training Superintendent, whose interest and willingness to cooperate made it possible for this word-frequency count to be conducted at Pan-American World Airways, LaGuardia Field, Jackson Heights, Long Island, New York.

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CHAPTER I

STATEMENT OF THE PROBLEM AND DEFINITION OF TERMS

The problem of this study was to make a word study of correspondence in a selected aviation concern for the purpose of determining a Gregg Shorthand Vocabulary to aid in specialized secretarial training.

The vocabulary of aviation, a comparatively new field of knowledge, has been changing and growing in rapid strides. As far as this writer could determine from the study of previous research and extensive readings, no actual frequency count to determine the most-frequently used aviation terms has ever been made. It would seem significant that teachers and students specializing in aviation work be entitled to such objective data. In this case it would merely be a count of the number of times an aviation term is used.

This study has for its purpose two definite objectives:

1. To make a frequency count of the most-frequently used aviation terms.
2. To determine a Gregg Shorthand Vocabulary from this frequency count.

DELIMITATION OF THE PROBLEM

This study was limited to the frequency count of the correspondence that was actually dictated in, or received by, this aviation concern's offices. It did not include a frequency count of the textbooks or the technical periodicals of aviation; this might prove to be purely subjective.

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For the purpose of clarification, it may be well to define the terms used in the preceding statements as they are used in this study.

Aviation Terms: Any words contained in Harold E. Baughman's "Aero-Thesaurus," Aviation Dictionary and Reference Guide,[1] and/or Henry Lionel Williams' Casey Jones Cyclopedia of Aviation Terms[2] will be recognized as aviation terms in this frequency count.

Correspondence: Communication between the selected aviation concern and concerns, agencies, or persons doing business with this concern by means of written letters.[3]

Frequency Count: An arrangement of words to show the number of times they occur in a given number of running words descending in order of frequency of occurrence.

Gregg Shorthand Vocabulary: This vocabulary contains a list of the most-frequently used aviation terms arranged alphabetically, and according to frequency.

Running Words: The actual running correspondence, as opposed to contextual material, found in this aviation concern.

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[1]Harold E. Baughman. "Aero-Thesaurus," Aviation Dictionary and Reference Guide. Glendale, California, Aero-Publishers, Inc. 1942.

[2]Henry Lionel Williams. Casey Jones Cyclopedia of Aviation Terms. New York, McGraw-Hill Book Company, Inc. 1946.

[3]All definitions in this thesis are based on the Dictionary of Education. New York, McGraw-Hill Book Company, Inc. 1945, and Dictionary of Occupational Titles. Washington, D. C., United States Government Printing Office, 1939.

Secretary: One who performs general office work in relieving executives and other company officials of minor executive and clerical details, and takes dictation using shorthand. See "Stenographer."

Selected (Aviation Concern): Pan-American World Airways at LaGuardia Field, New York was chosen because of its interest and willingness to cooperate in the conducting of this word-frequency count. This aviation concern is truly representative of the aviation industry.

Specialized Secretarial Training: Education, instruction and practice in the duties performed by stenographers, that seeks to prepare individuals for a specific type of occupation and maintain a high degree of proficiency.

Stenographer: One who takes dictation in shorthand of correspondence reports and who can transcribe dictated material, writing it out in longhand or using a typewriter. May be required to be versed in the technical language and terms used in a particular profession. In this study, "Secretary" and "Stenographer" will be used synonomously.

Word Study: The subjecting of words to an analysis to determine a list of words scientifically selected and arranged to indicate the relative frequency of occurrence.

PURPOSE OF THE STUDY

Aviation is a comparatively new field which has developed into one of the leading industries in this country. It is constantly seeking newer and broader fields. It has required

more and more workers as it has grown from a humble beginning to the prominence it holds today.

John R. Craf in his article, Business Education and the Air Age says:[1]

> The Civil Aeronautics Administration has estimated that by 1955, aviation will provide more than three quarters of a million jobs in America. The airlines of America employed 26,000 persons in 1941; by the summer of 1945 this total had grown to 50,000.

Office work has been an indispensable factor in this growth. Aviation is demanding more and more specialized workers in the field of secretarial training. Since there is a need for stenographers in the field of aviation, it becomes important that they have a basic knowledge of the vocabulary of aviation.

Ileen A. Waspe of Brigham Young University, Provo, Utah, in her radio script, The Efficient Secretary, states:[2]

> Truly there is no one whose opportunity to serve is greater than that of a secretary. She is always behind the scenes, but over her desk pass all the great transactions that move the wheels of industry, that regulate commerce, and that shape the destinies of our nation.

Frances Aves Smith interviewed airline executives on their reactions to their secretarial and stenographic staffs. In

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[1]John R. Craf. "Business Education and the Air Age." Journal of Business Education. June 1946. p. 14.

[2]Ileen A. Waspe. "The Efficient Secretary." Business Education World. October 1941. p. 161.

her article, Airline Secretaries, she points out that:[1]

> All airlines wish their employees had become familiar with aircraft and air-transport terminology before they were employed. Many personnel managers suggest study of the aviation guide.

Evangeline Markwick of Colby Junior College in New London, New Hampshire, in her article, Secretarial Training in Junior College, says:[2]

> .....executives and professional men have found in them (specialized secretaries) assistants who could speak their language, understand their problems, and cooperate in their work.

With such stress on the importance of stenographers, and the need for specialization, it becomes apparent that they be versed in the field in which they intend to specialize.

Many junior colleges and colleges throughout the country, cognizant of the fact that aviation offers splendid opportunities for well-trained stenographers, are providing aviation secretarial curriculums for those students interested in aviation work.

Colby Junior College, New London, New Hampshire, has set up an aviation secretarial curriculum for its students because of the constantly increasing demand for specialized secretaries in this field.

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[1]Frances Aves Smith. "Airline Secretaries." Business Education World. November 1942. p. 153.

[2]Evangeline Markwick. "Secretarial Training in Junior College." Business Education World. September 1945. p. 7.

Again Evangeline Markwick in her article, Secretarial Training in Junior College, says:[1]

> That the students who have taken our aeronautical secretarial program have made good has been indicated by calls from airplane companies for more girls with the same preparation, and by a recent request from officials of the Army Air Corps for a full description of the course and the materials used in it.

Ruth E. Bell gives an excellent description of an aviation secretarial curriculum in the May 1943 issue of the Business Education World.[2]

Richard Sielaff of Hamline University, St. Paul, Minnesota, in A College Secretarial Curriculum states:[3]

> Many colleges have introduced secretarial training in recent years.....schools are finding that this knowledge must be made more specific. Colleges receive requests for secretaries who know foreign languages.. who have a thorough background in science.

Carl H. McKenzie, secretary-treasurer of the Pennsylvania Telephone Corporation, in Factors in High School Business Education says:[4]

> Today, engineering progress and knowledge, technological improvements, and scientific

---

[1]Markwick, op. cit. p. 8.

[2]Ruth E. Bell. "A College Course for Training Aviation Secretaries." Business Education World. May 1943. p. 534.

[3]Richard Sielaff. "A College Secretarial Curriculum." Business Education World. March 1945. p. 358.

[4]Carl H. McKenzie. "Factors in High School Business Education." Journal of Business Education. May 1946. p. 17.

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> That the students who have taken our secretarial secretarial program have made good has been indicated by calls from airplane companies for more girls with the same preparation, and by a recent request from officials of the Army Air Corps for a full description of the courses and the materials used in it.

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[1] Markwick, op. cit. p. 8.

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[3] Richard Blefari. "A College Secretarial Curriculum." Business Education World. March 1946. p. 358.

[4] Carl H. McKenzie. "Factors in High School Business Education." Journal of Business Education. May 1946. p. 17.

> research provide the means to far outstrip all known endeavors toward a higher standard of living.

With such new improvements and the call for more specialized stenographers by aviation and business, it seems only logical that the schools should meet these urgent demands.

In answer to this writer's letter stating the problem of this study and seeking advice, Mr. Louis A. Leslie, Executive Secretary, Gregg Publishing Company, writes:[1]

> I assume you are familiar with our publication entitled Most-Used Aviation Terms. That does not represent a frequency study--we merely selected the words on a subjective basis from a rather inclusive dictionary to which credit is given in Most-Used Aviation Terms.

The dictionary of aviation mentioned by Mr. Leslie is Harold E. Baughman's "Aero-Thesaurus," Aviation Dictionary and Reference Guide.[2]

Mr. Leslie, in the same letter, goes on to say:[3]

> A secretary, stenographer, or correspondent might easily have very great use for a frequency count of the actually dictated correspondence of the industry.

Henry D. Rinsland of the University of Oklahoma, in

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[1]See Form A. p. 7A.

[2]Harold E. Baughman. "Aero-Thesaurus," Aviation Dictionary and Reference Guide. Glendale, California, Aero-Publishers, Inc. 1940.

[3]See Form A. p. 7A.

FORM A

November 8, 1946

Mr. Vincent J. Ribaudo
211 Princeton Street
East Boston, Massachusetts

Dear Mr. Ribaudo:

I assume you are familiar with our publication entitled "Most-Used Aviation Terms." That does not represent a frequency study--we merely selected the words on a subjective basis from a rather inclusive dictionary of aviation to which credit is given in "Most-Used Aviation Terms."

The first decision you will have to make is in regard to the scope of your study. Properly speaking, such a study would require separate frequency counts on three levels. There should be a frequency count for the actually dictated correspondence of the aviation office. There should be a count for the technical periodicals of the industry. There should be a count for textbooks of aviation.

Offhand, I should say that only the first count, that of aviation letters, would have any real value. Anyone who is going to learn to read the textbooks and periodical literature of aviation must study the whole subject and a frequency count would be of little or no use.

A secretary, stenographer, or correspondent might easily have very great use for a frequency count of the actually dictated correspondence of the industry.

Therefore, it would be my advice that you limit your count to aviation correspondence.

That then brings up the next decision--how are you going to get aviation correspondence? Probably through Boston University you could get access to the files of aviation concerns who would be willing to let you go through and count the word frequencies from the carbons actually in their files or perhaps from letters that are about to be destroyed.

FORM A (Continued)

The next decision relates to the identification of aviation terms. What is an aviation term? As a practical matter, you will probably be able to recognize subjectively the aviation terms in the correspondence you count. For thesis purposes, however, you would have to have an objective definition. My suggestion would be that you get the largest available dictionary and arbitrarily say that any word contained therein would be recognized in your count.

Having gotten this far, all that remains to be done is to read the letters, making a 3" x 5" filing card for each aviation word and at the same time keeping at least an approximate tally of the number of running words of letters that you have counted.

By conducting your count in this way, counting only the aviation terms, ignoring all of the English words, and keeping an approximate count of the running words contained in the letters, you will be able to cover several hundred thousand words of running material with relatively little effort. I should say offhand that nothing less than 200,000 words of running material would give you any kind of validity and that actually you should have more like 500,000 running words.

When you are all through you will have boxes and boxes full of file cards which need only to be filed and collated so that eventually you will wind up with one card for each word with a note on that card as to the total number of times that word occurred.

I expect to be in Boston sometime next month. Perhaps through Doctor Rowe of the School of Education you could arrange to have a little time to talk with me about this project if there is anything further that I can help you with. If, in the meantime, I can help you with anything, don't hesitate to write me.

Cordially yours,

Louis A. Leslie
Executive Secretary to the President

LAL:FL

A Basic Vocabulary of Elementary School Children says:[1]

> Even the estimates of scientific writers for high school science textbooks are over-estimates, both in technical terms and non-technical terms, as shown by a most extensive analysis by Curtis in 1938.

It is believed that there is a need for exactness. If one gains a permanent knowledge as it is needed for a special purpose much time and effort may be saved.

Word-frequency counts have been used in the selection and construction of shorthand practice material. They have been made by leaders in the field of education. From these the teachers of shorthand have determined the best material to present to students of shorthand.

Louis A. Leslie in his article, Thorndike's 30,000 Words and the Shorthand Teacher, says:[2]

> Word-frequency counts, however, are still the best criterion by which we can judge word values for shorthand instruction; and, therefore, it behooves the shorthand teacher to be familiar with each new word count as it appears.

Clyde W. Humphrey in Is Word Frequency Misused? comes to the conclusion that:[3]

> Thus, it may be seen that the proper function

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[1]Henry D. Rinsland. A Basic Vocabulary of Elementary School Children. University of Oklahoma, 1945. New York, The MacMillan Company, 1945. p. 3.

[2]Louis A. Leslie. "Thorndike's 30,000 Words and the Shorthand Teacher." Business Education World. June 1946. p. 526.

[3]Clyde W. Humphrey. "Is Word Frequency Misused?" Business Education World. May 1945. p. 467.

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[1] Henry D. Kinsland. A Basic Vocabulary of Elementary School Children. University of Oklahoma, 1938. New York, The Macmillan Company, 1938. p. 5.

[2] Louis A. Leslie. "Thorndike's 30,000 Words and the Shorthand Teacher." Business Education World. June 1946. p. 838.

[3] Clyde W. Humphrey. "Is Word Frequency Misused?" Business Education World. May 1945. p. 487.

> of word-frequency counts in the selection of shorthand practice material should be that of insuring that the running material selected is neither restricted to the commonest words nor unduly studded with unusual and infrequent words.

The writer shares this opinion. However, Mr. Humphrey makes no mention of technical vocabularies and the importance of the word-frequency counts in the selection of words to be included therein.

Again Henry D. Rinsland in A Basic Vocabulary of Elementary School Children says:[1]

> Vocabularies are variables rather than constants. It is obvious that no single piece of research could give a complete or total graded vocabulary, nor all the data about words that might be required for a comprehensive understanding.

Conditions in the commercial and economic life of the nation are constantly changing, and our vocabulary is, as a result, not static. It is believed that a basic vocabulary upon which the teacher of shorthand can build whenever the need arises would be of great value.

G. A. Carlson in her master's thesis, Reactions of Selected (60) Business Men Relative to the Employability of High School Business Course Graduates,[2] found that a large electri-

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[1]Rinsland, op. cit. p. 2.

[2]Gunhild Augusta Carlson. Reactions of Selected (60) Business Men Relative to the Employability of High School Business Course Graduates. Unpublished master's thesis. Boston University, 1946.

cal company had difficulty in finding employees who could take effective shorthand notes and transcribe correctly because their vocabulary was essentially engineering and scientific.

Carlson says:[1]

> This criticism seems hardly justified. The high school business course does not pretend to produce specialists in engineering and scientific typing; most business firms..... expect to develop any necessary specialized ability through their own In-Service Training programs.

The author makes no mention, in her comment, upon the inability of the stenographers to take effective shorthand notes because the vocabulary was essentially technical. Moreover, the writer does not share Mrs. Carlson's opinion. If there is a need for specialists in the various phases of business (taking into consideration community needs), it is up to the schools to produce them.

Let it not be misunderstood that it is advocated that a stenographer be trained in the many phases of specialized business. However, certain areas have many electrical companies, and others have many legal offices. In still other areas there are many hospitals and medical offices. With the growth of aviation more and more air fields are springing up all over the country, and they have a need for stenographers that are specialists in this field.

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[1]Carlson, op. cit. p. 37.

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[1]Carlson, op. cit. p. 37.

The secondary schools and/or colleges strategically located near airport centers and/or aviation industries can determine in advance the job opportunities and qualifications in their particular localities and plan the selection of specialized shorthand training which they will offer. The specialized stenographer, upon graduation, can take her place in her particular field and become an efficient and worthwhile contributing member of that industry. She can better take advantage of the opportunities that present themselves.

Companies can then plan their In-Service Training programs to acclimatize the stenographers to routine office procedures and other factors peculiar to their industries. They can save much time and money if their stenographers come to them well-equipped to go right ahead and take their places.

Jay W. Miller of Goldey College, Wilmington, Delaware, in his article, The Medical Secretarial Course, says:[1]

> Early in 1944 a survey of the Wilmington area was conducted to determine the interest in, and need for, a medical secretarial course in the community.....the number of potential positions in this territory..... the limit of enrollment was based upon the basis of this survey. A course was outlined as a result.

This college realized that they should turn out stenographers who were versed in certain fields to benefit themselves

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[1]Jay W. Miller. "The Medical Secretarial Course." Journal of Business Education. June 1945. p. 22.

and the community. As a result of this survey a medical secretarial course was outlined. Something constructive was done about the needs of the community as regards the need for specialized stenographers in medical work. More secondary schools and colleges should do this kind of work.

Judgments from twenty-nine (29) members of the Transcription Supervisors Association of New York were procured recently about their stenographic employees. Twenty-one (21) of the twenty-nine (29) members stated that:[1]

> .....stenographers should be familiar with the different technical vocabularies used by the different organizations.

The article continues:[2]

> This is possibly an unjustified criticism on the part of these transcription supervisors. It is impossible for the usual high school teacher to present technical vocabularies of the multitudinous different organizations.

Again business has stated the need for stenographers trained in their particular fields. The writer does not believe this is an unjustified criticism. The multitudinous technical vocabularies need not all be taught. Certain areas, as mentioned above, specialize in certain activities. Schools can then plan accordingly. Also, the prospective

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[1] Journal of Business Education. "What Business Thinks and Says." September 1946. p. 35.

[2] Ibid.

stenographer may have already decided into what field she will seek employment upon graduation. She should have the opportunity, while in school, to take such training as to make her a specialist in her chosen field.

A study, conducted under the supervision of Dr. Albert C. Fries, by the graduate students of the department of Business Education at Northwestern University revealed that:[1]

> Almost one out of every ten employed persons in the United States is engaged in stenography.[2]

Many persons are engaged in stenography and there is a definite need for specialized stenographers. Many businessmen have stated their need for them; but of what value is it to turn out stenographers who merely know shorthand and are not specialized or versed in any field?

Aviation has a definite need for trained stenographers. Aviation secretarial curriculums could be set up on the bases of surveys made in the immediate localities.

If such curriculums are set up, there will be a need for a dictionary of aviation and a vocabulary of aviation. The students taking up such stenographic work should not be compelled to memorize the outlines of aviation terms that they

---

[1]Albert C. Fries. "Vocational Information for Prospective Stenographers." Business Education World. June 1945. p. 559.

[2]This statement was ambiguously worded. By "persons" in this statement, the group conducting this study under the supervision of Dr. Fries meant "clerical workers."

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[1] Albert C. Price. "Vocational Information for Prospective Stenographers." Business Education World. June 1940. p. 589.

[2] This statement was ambiguously worded. By "persons" in this statement, the group conducting this study under the supervision of Dr. Price meant "clerical workers."

will use very rarely. Rather, they should know the aviation terms that are in constant use, and be able to construct such outlines. Technical vocabularies based upon such needs should contain only the relevant and pertinent terms in constant demand and use.

As many writers have observed, an intensive vocabulary is concomitant with success.

Yet, no published study has given the raw frequency--the actual number of times aviation terms appeared in aviation correspondence.

It is believed that a word list, alphabetically, and in order of frequency occurrence, based upon a frequency count of the most-used aviation terms would be of much constructive value.

An attempt will now be made to make a frequency count of the most-frequently used terms in aviation correspondence, and to determine from the frequency count a Gregg Shorthand Vocabulary.

CHAPTER II

A DIGEST OF SOME RECENT WORD-FREQUENCY COUNTS

The writer mentioned, in the previous chapter, that no actual frequency count had ever been made to determine the most-frequently used aviation terms. This conclusion was reached after a thorough study of previous research and extensive readings.

In a personal interview with Mr. Louis A. Leslie, who has done much research in this field for the past twenty years, it was further corroborated that no such word-frequency count had ever been made.

Word-frequency counts, however, have been used extensively in the preparation of vocabulary word lists, and in the selection of shorthand practice material.

As has been pointed out previously, Louis A. Leslie in his article, Thorndike's 30,000 Words and the Shorthand Teacher, stated:[1]

> Word-frequency counts do not tell the whole story of the relative values of words to the shorthand writer because there are other factors which are strictly shorthand that must be taken into consideration. Word-frequency counts, however, are still the best criterion by which we can judge word values for shorthand instruction; and, therefore, it behooves the shorthand teacher to be familiar with each new word count as it appears.

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[1]Louis A. Leslie. "Thorndike's 30,000 Words and the Shorthand Teacher." Business Education World. June 1946. p. 526.

Mr. Leslie, in the same article, continues:[1]

> Words are the stock in trade of the shorthand writer. The more the shorthand teacher knows about the relative values of words, the more effectively he will be able to direct the shorthand learning of his pupils.

Recognizing the true significance and importance of word-frequency counts in shorthand, it has been decided to digest four of the outstanding word-frequency counts. Each count, as it was made, proved of real and constructive value in the study of shorthand.

In 1926 Dr. Ernest Horn of the University of Iowa published the first of these four significant word-frequency counts.[2]

In the foreword of this study, A Basic Writing Vocabulary, Dr. Horn points out the four purposes of the monograph:[3]

1. To make available a list of the 10,000 words most-often used in the writing done in the United States outside the school.

2. To give a summary and a critical evaluation of the various investigations which were utilized in determining this list of words.

3. To discuss the most important problems and techniques involved in this type of vocabulary research.

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[1]Leslie, op. cit. p. 527.

[2]Ernest Horn. A Basic Writing Vocabulary--10,000 Words Most-Commonly Used in Writing. University of Iowa Monographs. First Series, No. 4. Iowa City, State University of Iowa, 1926.

[3]Ibid., Foreword.

4. To show how this list of words may be used not only for practical but also for scientific purposes.

In this count Dr. Horn presented information that would be of interest and practical value to the teachers and the administrators, rather than presenting technical data on the technique used in carrying out the count.

In his first chapter Dr. Horn lists the studies of writing vocabularies prior to 1922. He gives the fundamental assumptions of each study and reviews each study critically.

He states:[1]

> In 1919 the writer combined the words of all correspondence studies which had been made up to that time. As new investigations were completed and available, they were added to this compilation. At the time the grant from the Commonwealth Fund was received, there had been accumulated in this compilation an aggregate of about 865,000 running words.

Dr. Horn goes on to say:[2]

1. The scientific accuracy of this compilation is marred by the lack of completeness in the data reported in some investigations as well as by lack of uniformity among the various investigations in the method of tabulating words.

2. Had each investigator tabulated each word form separately, the compilation would have been easy and satisfactory.

3. There are 36 additional words of high frequency which were omitted from the published lists of one or more investigations.

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[1]Horn, op. cit. p. 17.

[2]Ibid., pp. 17-18.

4. In some investigations the frequencies for certain word forms were tabulated under other forms of the same word.

This compilation of studies previous to 1922 proved to be the most adequate measure of adult writing vocabularies at that time.

Dr. Horn found that reliability of the counts decreased very rapidly after the first thousand words, and that more extensive work was needed to determine the real value of the words of lower frequency. Thus did the compilation of 1922 lead to the compilation of 1925. In this new compilation eight (8) new investigations were made.

These new investigations included:[1]

1. The Nature and Extent of the Vocabulary of Business Correspondence.

2. The Nature and Extent of the Vocabulary of Personal Correspondence.

3. The Vocabulary of the Letters of People of More than Average Ability.
   a. The Vocabulary of Letters of Well-Known Writers.
   b. The Vocabulary of Letters Printed in Magazines and Metropolitan Newspapers.

4. The Nature and Extent of Vocabularies of Letters of Application and Recommendation.

5. The Vocabulary of Adult Writing Needs other than Correspondence.

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[1]Horn, op. cit. p. 23.

a. The Vocabulary of Minutes, Resolutions, and Committee Reports.
b. The Vocabulary of Excuses Written to Teachers by Parents.

6. The Vocabulary of the Letters of a Single Individual.

The method of tabulation was used uniformly throughout all sections of the investigations:[1]

1. All words were recorded, including slang, colloquial, and supposedly obsolete words, with the exceptions noted below:
   a. All proper names of persons and places, names of months and days.
   b. All words of less than four letters, since these have relatively small difficulty.
   c. Forty-one (41) words found with very high frequency. (Listed in the Study.)

2. Each word form was tabulated separately.

3. All abbreviations and contractions were recorded as written.

In the actual tabulation of words, sheets 8½" x 13" were used. The words were indexed on the left-hand side of the sheets according to beginning letters of key words. It was found that as the count progressed larger sheets were needed. For each occurrence of a word a small vertical mark was made. For each fifth occurrence of a word a diagonal was drawn through the four vertical marks. Counting was made in groups of five. Each sheet was labeled to indicate from which source the material was taken.

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[1]Horn, op. cit. pp. 21-22.

The importance of each word was determined by multiplying its total frequency by the square root (approximate) of the number of different sources in which the word was found. This was done in all of the eight investigations to weight the word-importance.

In the first investigation of business correspondence the estimated total of the number of running words, excluding frequencies for names of persons and places, but including the estimated number of 372 words not tabulated (words of four letters or less of high frequency), was 1,538,487. This total includes totals of other pertinent studies reviewed by Dr. Horn. Excluding the forty-one (41) words omitted in the count, 15,152 different words were found.

Actually recorded from personal letters were 561,056 running words. Exclusive of the forty-one (41) words omitted, 19,243 different words were found. The number of estimated running words, including estimates of the 372 words not tabulated separately, but excluding the credits for names of persons and places, was 1,433,948.

A total of 36,393 different words was obtained from the investigations of business and personal letters.

In the third investigation of letters of well-known writers the actual number of running words was 275,779. Including the estimates of the 372 words not tabulated, but excluding credits for names of persons and places, the estimated running words were 704,837. Exclusive of the forty-one (41)

omissions 23,581 different words were found. More different words were found in this correspondence than in any other.

The total number of estimated running words in the investigation of letters printed in magazines and metropolitan newspapers, exclusive of names of persons and places, but inclusive of the credits from the Clarke list,[1] were 178,101. The vocabulary of these writers and that of well-known writers (letters) together make up more than one-eighth (1/8) of the total number of running words tabulated in all investigations.

The vocabulary of letters of application and recommendation provided an actual number of running words totalling 61,456. Including estimates of the 372 words not tabulated, but excluding credits for names of persons and places, the estimated number of running words was 157,069. Exclusive of the forty-one (41) omissions, 5,012 different words were found. Dr. Horn points out that because of the seriousness of spelling errors in letters of application, similar studies should be made for other types of business and professions.

In an investigation of the vocabulary of minutes, resolutions, and committee reports, 5,728 different words, not counting the special words, were found. The actual number of running words proved to be 49,479. Including the estimates of the 372 words not tabulated, but excluding credits for names

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[1] W. F. Clarke. "Writing Vocabularies." Elementary School Journal. Vol. XXI. January 1921.

of persons and places, the estimated number of running words was 126,459.

The excuses written by parents to teachers proved to be the most poorly written. The investigation disclosed the words used with greatest frequency. Only 892 different words were found, not counting the 372 words not recorded. The actual number of running words was 12,109. The estimated number, including the estimates of the 372 words, but excluding credits for names of persons and places was 30,948.

The actual number of running words recorded in the investigation of the letters of a single individual was 91,984. Exclusive of names of persons and places and the 372 special words not tabulated, 6,512 different words were found. Excluding credits for names of persons and places, but including the estimates of the 372 words not tabulated, the estimated number of running words was 235,093.

After these investigations were made, Dr. Horn set up a composite list of the studies of Andersen,[1] Cook and O'Shea,[2] McFadden and Burk,[3] and the Horn study of 1922.[4]

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[1]W. N. Andersen. Determination of a Spelling Vocabulary Based Upon Written Correspondence. Iowa City, University of Iowa Studies in Education. Vol. II. No. 1, 1921.

[2]W. A. Cook and M. V. O'Shea. The Child and His Spelling. Indianapolis, Indiana, Bobbs-Merrill Company, 1914.

[3]E. McFadden and F. Burk. Ninety-One Friends' Letters. No reference data available.

[4]Ernest Horn. The Vocabulary of Highly Personal Letters. Unpublished document. 1922.

In this composite list were a total of 731,873 estimated running words.

In the compilation of 1925 Dr. Horn had 4,272,482 running words. To this he added the 864,334 running words of the compilation of 1922. In the compilation of both studies, the total number of running words was 5,136,816.

Dr. Horn comments:[1]

> From experience gained in making the present compilation the writer now believes that it would have been better to omit a larger number of high frequency words in the new tabulations, say the three hundred (300) words of highest frequency, and to record all two-and three-letter words of lower frequency. It must be remembered, however, that only these 372 words have estimated credits and that the credits for the remaining 36,001 in the present compilation are based on actual counts.

Dr. Horn's final tabulation chart shows each word found in the eight investigations of the compilation of 1925, including the compilation of 1922 (composite list mentioned above) and the Thorndike word list of 1921.[2]

Rules were formulated for the selection of the 10,000 commonest words. Thus important words were chosen and unimportant words left out.

The key to the symbols used in printing the word list is presented.

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[1]Horn, op. cit. p. 43.

[2]E. L. Thorndike. The Teacher's Word Book. New York, Teachers College, Columbia University, 1921.

In appendixes and various parts of his study Dr. Horn also lists words having a frequency of 15 or more which did not meet all of the rules or for other reasons listed, words that did not quite satisfy all of the requirements of the rules, words which satisfied the rules but were excluded for other considerations, and a list of all words with a frequency of 14 or 13 which were not included in the list of 10,000 words. All of these words just made the outer fringe of importance.

For the first 5,000 words Dr. Horn used Dr. Thorndike's plan[1] of indicating in which thousand and in which half of that thousand a word belongs.

Dr. Horn also discusses the validity and reliability of the list. He then proceeds to evaluate this list. He establishes a further need for investigation of existing data and the uses of the 10,000 commonest words in writing.

In this study Dr. Horn concludes:[2]

> On pages 190 to 193 of this monograph the writer has attempted to indicate the ways in which, in his judgment, the data from the present investigation may be best supplemented. The degree to which these data may be made the basis for further investigations is one of the best measures of the usefulness of this monograph.

The lowest grade level of Dr. Horn's study was that of the college student.

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[1]Thorndike, op. cit.

[2]Horn, op. cit. p. 199.

This study superseded Thorndike's word list of 1921.[1]

In 1931 Dr. Thorndike published a 20,000 word list[2] which carried word-frequency counts a step further.

Ernest Horn and Thelma Peterson published The Basic Vocabulary of Business Letters in 1943.[3] This is the second of four significant word-frequency counts to be digested.

Again the studies previous to the one made by Dr. Horn in 1926, and also the studies that have been made between 1926 and 1943 are presented. Dr. Horn presents the limits of the words (order of frequency) as determined by his previous study.

Dr. Horn states:[4]

> It was clear from this table that more extensive tabulations should be made to determine reliably the importance of words beyond the first thousand.

In this study of 1926 the following investigations were made:[5]

1. The Vocabulary of Business Correspondence.
2. The Vocabulary of Personal Letters.
3. The Vocabulary of Letters of People of More than Average Literary Ability.
4. Vocabularies of Letters of Application and Recommendation.

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[1]Thorndike, op. cit.

[2]E. L. Thorndike. The Teacher's Word Book of 20,000 Words. New York, Teachers College, Columbia University, 1931.

[3]Ernest Horn and Thelma Peterson. The Basic Vocabulary of Business Letters. New York, Gregg Publishing Company, 1943.

[4]Ibid., p. 2.

[5]Ibid.

5. The Vocabulary of Adult Writing Other than Correspondence.
6. The Vocabulary of Letters of a Single Individual Written Over a Period of Eight Years.

When these eight new investigations were made in 1926, all words were recorded, including slang, colloquial, and supposedly obsolete words, with three exceptions:[1]

1. All names of persons, places, and the months and days.

2. All words of less than four letters since the investigations were primarily meant to improve the selection of words for spelling, and these words present relatively small spelling difficulties.

3. Forty-one (41) common words. (Listed in the Study.)

Dr. Horn noticed that only slightly more than 100,000 running words were tabulated from a small number of types of business in previous studies. To obtain adequate data on business correspondence Dr. Horn decided to investigate a larger number of types of business.

It was found that all types of business could not be represented and that some of the data would not be extensive enough to be of much value. Words in letters were tabulated on the premises when the firms would not allow letters to be taken from their offices.

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[1]Horn and Peterson, op. cit. p. 2.

5. The Vocabulary of Adult Writing Other than Correspondence.
6. The Vocabulary of Letters of a Single Individual Written Over a Period of Eight Years.

When these eight new investigations were made in 1926, all words were recorded, including slang, colloquial, and supposedly obsolete words, with three exceptions:[1]

1. All names of persons, places, and the months and days.

2. All words of less than four letters since the investigations were primarily meant to improve the selection of words for spelling, and these words present relatively small spelling difficulties.

3. Forty-one (41) common words. (Listed in the Study.)

Dr. Horn noticed that only slightly more than 100,000 reading words were tabulated from a small number of types of business in previous studies. To obtain adequate data on business correspondence Dr. Horn decided to investigate a larger number of types of business.

It was found that all types of business could not be represented and that some of the data would not be extensive enough to be of much value. Words in letters were tabulated on the premises when the firms would not allow letters to be taken from their offices.

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[1]Horn and Peterson, op. cit. p. 2.

Twenty-six (26) large classes of business letters and data obtained from earlier studies were made available. These are the twenty-six (26) classes of business investigated:[1]

1. Miscellaneous.
2. Florists.
3. Automobile Manufacturers and Sales Companies.
4. Wholesale and Retail Druggists.
5. Manufacturers of Clothing and Textiles.
6. Dealers in Lumber and Furniture.
7. Manufacturers, Wholesalers, and Retailers of Foodstuffs.
8. Law Firms.
9. Insurance Companies.
10. Dealers in Crockery and China.
11. Building and Construction Companies.
12. Community Organizations.
13. Coal and Oil Companies.
14. Electrical Supply Houses.
15. Medical Supply Companies.
16. School Supply Companies.
17. Banks; Loan and Investment Companies.
18. Public Utilities.
19. Dealers in Hardware and Machinery.
20. Car and Truck Companies.
21. Railroad and Express Companies.
22. Steel and Iron Manufacturers.
23. Schools, Churches, and Libraries.
24. Department Stores.
25. Publishers.
26. Farmers.

It was found that the average number of different firms included in each class was six.

Dr. Horn used approximately the same method of arranging the words in alphabetical order with the total frequency for each word.

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[1]Horn and Peterson, op. cit. pp. 4-5.

Dr. Horn describes the method used in conducting the word study in great detail. Briefly, sheets were ruled and labeled according to the classification of business investigated. The words were listed on the left-hand side of the sheet. Columns were numbered to indicate the numbered class of business. It was noted how many times each word appeared in each class of business. The total number of running words was not the same in each of these twenty-six (26) classifications.

The words were weighted in the same manner as they had been in Dr. Horn's previous study.[1] Thus was obtained the total number of classes of business correspondence in which each or any word occurred. Each word was multiplied (its total frequency) by the approximate square root of the number of different classes of business in which the word was found. The exact square root was not taken because the task would have been very great. A special column lists the weight of each word--its importance.

Estimates of the total and weighted frequencies of the words were based on the compilation of 1922.

In Table 3 Dr. Horn presents the numbers used for weighting in the twenty-six (26) classes of business investigated:[2]

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[1]Horn, op. cit.

[2]Horn and Peterson, op. cit. p. 7.

Table 3

Number of Types of Business	Number Used for Weighting
1- 2	1
3- 6	2
7-12	3
13-20	4
21-26	5

The key to the symbols used in printing the word list is also presented:[1]

> The relative frequency of words appearing in this list is indicated by numbers and letters combined. This combination shows in which a thousand and in which half of that thousand a word belongs. For example, 1a means that word is in the first half of the first thousand; 2b that it is in the second half of the second thousand; 5a that it is in the first half of the fifth thousand; and so on. These symbols always appear in front of the word listed. The number immediately following the word listed represents the total number of times it was found. The second number following the word indicates the weighted total.

A table is presented to give a key to the position of words bearing the various number and letter combinations.

The important or real significance of this study was that of 1,436,223 running words of business letters chosen from twenty-six (26) lines of business, 14,834 different words were found--all are listed in the study.

The business letters investigated by Dr. Horn were of a general or non-technical nature. Not many technical terms were contained therein.

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[1]Horn and Peterson, op. cit. p. 8.

The third word-frequency count of importance was The Teacher's Word Book of 30,000 Words published by E. L. Thorndike and Irving Lorge in 1944.[1]

This investigation incorporates the data of Dr. Thorndike's counts of 1921 and 1931, and also of three other counts of over four and one-half million (4,500,000) words each. They are, classified according to usage:[2]

1. The Teacher's Word Book of 1921.
2. The Thorndike General Count of 1931.
3. The Lorge Magazine Count.
4. The Thorndike Count of 120 Juvenile Books.
5. The Lorge-Thorndike Semantic Count.

In the Preface Dr. Thorndike states:[3]

> Certain exercises of judgment have been necessary because the recorders of the magazine count began all words with capital letters, and because the recorders of the semantic count did not record contractions like "isn't," and did not separate different forms of words like "be, come, and do," and because the count of juvenile books did not include the top 2,500 of the Thorndike general count. The original Thorndike count failed to record abbreviations adequately, and it is likely the recorders in the other counts skipped many.

No separate column was made for scientific and other erudite reading matter. Dr. Thorndike states that a fair proportion of weighting this type of matter was made, but that

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[1]E. L. Thorndike and Irving Lorge. The Teacher's Word Book of 30,000 Words. New York, Teacher's College, Columbia University, 1944.

[2]Ibid., Preface.

[3]Ibid.

this weighting really deserves a separate column. Dr. Thorndike also points out that columns of modern fiction or new war vocabularies might be useful.

In presenting his data Dr. Thorndike sets up columns and labels them for each frequency count included. There are five columns. The first column is entitled G. This column presents various letters and numerals. If the number one (1) is in this column following a word, it means that it occurred (the word) at least once in a million words and not as many times as twice in two million, and so on. The letter A in this column means that that word occurred at least 50 times per million words and not so many as 100 times per million. A double A (AA) in this column indicates that that word occurred 100 times or over per million words. The letter M indicates that the word was one of the 500 commonest by the Thorndike count. The number of occurrences of the last mentioned were not estimated.

Dr. Thorndike points out that:[1]

> The general principles followed are:
> Every occurrence is counted somewhere.
> No occurrence is counted twice.....Certain facts about the inclusion of variant forms and spellings are reported by letters or words in parentheses. All these will be self-explanatory.

The number in the G column (indicated by letter combinations as described above) is a summary of all of the four counts, and is therefore the most important.

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[1]Thorndike and Lorge, op. cit. p. ix.

The columns for these four counts are appropriately labeled. The following are the symbols used to designate the columns, and also the sources of the material for each count:[1]

> T--Frequency in readers, textbooks, the Bible, and the English classics.
>
> L--Recent and popular magazines.
>
> J--Only books recommended for boys and girls in grades 3 to 8.
>
> S--Miscellany of juvenile and adult reading--of old and recent, and of matter-of-fact and imaginative--but omitted school readers and textbooks.

Dr. Thorndike then gives procedures for using these words from the lists for grades 1 to 8. It is explained that it is not to be construed that the pupils should learn the words permanently. Also, that if a word doesn't occur in some readings of the class, it shouldn't be taught until it is encountered. The words prescribed for a certain grade should appear in the word list. If the words do not appear fairly often, either the list or the reading matter used in the grade should be changed. Dr. Thorndike makes a point of this.

No rules are offered for grades 9 to 12 because:[2]

> The value set upon widening a pupil's vocabulary versus improving his taste, improving his effectiveness in speech and writing, and various other achievements of the high school teaching of English varies from city to city and from teacher to teacher. Moreover, the method used to widen

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[1]Thorndike and Lorge, op. cit. p. x.

[2]Ibid., p. xi.

> vocabulary varies from thorough learning of many words to relying mainly upon learning enough on each occasion from context, dictionary, and explaining to serve the needs of that occasion. So we offer no rules like those for grades 1 to 8. Those responsible for the teaching of English should set whatever standards they think best for word knowledge.

It is mentioned that standards may best be set in terms of this word list, and that it can be used in classes for adults: for adults learning English, for adults learning to read, and for those who are improving their knowledge of English for a special purpose.

Dr. Thorndike then makes some practical suggestions as to how to best use this word list for adults. It is also mentioned that this list may well be used by lawyers, preachers, lecturers, textbook writers, and many more.

Louis A. Leslie points out in his article, Thorndike's 30,000 Words and the Shorthand Teacher:[1]

> .....the Thorndike lists fail to list or count separately most of the derivative forms that are of interest to the shorthand teacher--plurals, past and present participles, and the like.....the 30,000 words in the Thorndike-Lorge list represent probably 45,000 words when counted on the Horn basis, with a separate entry for each plural and other similar derivatives.

In the eighteen million (18,000,000) running words counted, 80,000 different words were found. Only 30,000 words

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[1]Louis A. Leslie. "Thorndike's 30,000 Words and the Shorthand Teacher." Business Education World. June 1946. p. 526.

were believed to be useful and significant. In the material counted, each of these 30,000 words occurred at least once in each four million (4,000,000) running words.

Because the various derivative forms were not counted, this list is limited in its usefulness to the shorthand teacher. This study, however, shows that the shorthand writer must be able to handle any combination of sounds in any English words.

The various methods used in tabulating and counting the words are not given. For those interested in knowing how these counts were conducted, it is suggested that they read Dr. Thorndike's article, Word Knowledge in the Elementary School.[1]

Louis A. Leslie says this about Rinsland's A Basic Vocabulary of Elementary School Children:[2]

> The Rinsland list fits the last missing stone into the arch of information needed by the shorthand teacher; it fills a long-felt want and settles many a heated controversy in the field of shorthand teaching.

It is suggested that the reader keep in mind the pertinent comments quoted from Rinsland in the previous chapter.

Henry D. Rinsland states:[3]

> The specific problem of this study is to present the actual frequency of the use of words, grade

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[1]E. L. Thorndike. "Word Knowledge in the Elementary School." Teachers College Record. September 1921. p. 249.

[2]Louis A. Leslie. "Shorthand Significance of the Rinsland Vocabulary Study." Business Education World. December 1945. p. 207.

[3]Henry D. Rinsland. A Basic Vocabulary of Elementary School Children. University of Oklahoma, 1945. New York, The Macmillan Company, 1945. p. 2.

> by grade, of many children from all sections of the country and to give these data in such a way that they may be helpful to the teacher, the writer of textbooks, and the student of learning.

Rinsland establishes the need for a study of children's vocabulary and makes mention of the fact that there should be more agreement of the word-frequency counts previously made.

He goes on to say:[1]

> The widely known studies of Thorndike (1921 and 1931) and Horn (1926) have made valuable contributions to our knowledge of the writings of adults. The Thorndike study offers our best information of the words used primarily in books, and the Horn study offers our best information of the words used primarily in the writing of letters, although his study sampled other material.

Adults' writings were sampled very comprehensively, but no one had sampled children's writings as well. Rinsland takes issue with this, and tells of the need for more data regarding children's lists.

In establishing the need for a study of children's vocabulary, Rinsland says:[2]

1. There is no study that has broadly sampled the writings of children from all sections of the United States in all grades in large numbers that is comparable to the counts of Thorndike (1931) and Horn (1926).

2. No study gives continuous data for all eight grades.

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[1]Rinsland, op. cit. p. 4.

[2]Ibid., p. 5.

3. No published study gives raw frequency, that is, actual number of times a word occurs in each grade.

4. No published study groups words in each grade into groups of practical sizes for general use, such as the first hundred, the first five hundred, and so forth.

5. No study gives a measure of comparable frequency of occurrence from grade to grade, such as per cent, per mill, or per hundred thousand running words (the unit used in this study).

Rinsland continues:[1]

> The present study attempts to remove these objections as far as is possible, within the time and financial resources at hand, and present all obtained data.

In a table Rinsland presents the cities, training schools in colleges, number of counties, and the geographic area of each who contributed samples of children's writings.

Fifteen hundred (1,500) schools were selected for this study. A very satisfactory response of 47.2 per cent was received. Responses were poorest from metropolitan centers and thickly populated sections in the East.

Written reports were secured of the first-grade children's conversation in school and outside. Each paper was gone over thoroughly and marked as to school and grade. Originality of the compositions was determined exhaustively. Only one composition from each child was used.

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[1]Rinsland, op. cit. p. 5.

To assure uniformity of treatment, the following rules for tabulation were used:[1]

1. Count all words--roots, derived forms, abbreviations, and contractions--just as they occur.
2. Tally separately run-together words.
3. Delete baby talk unless terms are found to be good English words.
4. Delete illegibles.
5. Count the correct forms intended when words are spelled unusually or wrongly.
6. Delete slang, provincialisms, colloquial expressions, as determined by the dictionary, as well as trade names and proper names of persons and places, except very well-known terms.
7. Do not tally separately words that may be written in two ways, but consider them the same for purposes of tabulation. Examples are today and to-day, tonight and to-night, tomorrow and to-morrow.
8. Tabulate the correct forms intended when errors occur in the use of homonyms. Two, too, and to are to be tabulated separately.
9. Tabulate separately words that are compounded if the compounding is incorrect or is used for running composition.

The kinds of writings for each grade were:[2]

1. Personal Letters.
2. Expositions.
3. Original Stories.
4. Poems.

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[1]Rinsland, op. cit. pp. 8-10.

[2]Ibid., p. 9.

5. Examination Papers.
6. Conversation Pages (First Grade Only).
7. Projects.
8. And Others of Less Importance.

A somewhat detailed statement of the general method employed in counting the frequencies of the words is given below:[1]

1. The papers were sorted by grades.

2. The papers were read and selection was made for content.

3. The alphabet was divided by key words which were mimeographed in widely-spaced positions on several sheets of paper, 8½" x 11". Words were then recorded from original papers.

4. The accumulated words were transferred to large combining sheets, each of which held one to two thousand words.

5. Totals from the combining sheets were entered directly in permanent ledgers already containing accumulated words from previously published lists.

6. At every step totals of running words and totals of different words were balanced to see that no errors were made in tallying, copying, and adding of totals.

The total number of compositions in the eight grades amounted to 100,212.

A count of 6,012,359 running words produced a total of 25,632 different words. This total number of different words was much larger than expected.

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[1]Rinsland, op. cit. p. 10.

Rinsland describes the group symbols and their meanings. In various tables there is presented the number of different words within each age and grade group, and the range of frequencies grouped according to number of words.

The inflectional unit as used by Horn was used in this study. The lexical unit employed by Thorndike was not used. Plurals, contractions, abbreviations, and so on, were tallied separately.

Not many technical terms are listed. Most of the words are of a general nature.

Rinsland recommends this word list as a basic vocabulary rather than a total vocabulary. It is mentioned that this study doesn't tend to produce a static writing vocabulary. It is advocated by Rinsland that a list of words that occur less than three times in this study, and all words not listed, be set up to help the pupils. Reading difficulty would be lessened. Important technical terms would be contained therein.

In this study there are 1.68 derived forms for each root form. In the above ratio, only the 35 derived forms as listed by Thorndike in his study of 1941 were counted.

In presenting some uses of this word list, Rinsland states:[1]

Not only is there a practical use of the word

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[1]Rinsland, op. cit. p. 19.

> list in writing textbooks but also in writing stories, pupils' magazines, and reference books. Certainly many of these fields need additional knowledge of word difficulty or placement, as their grading is usually not as carefully done as in textbooks. Writers in these fields are not so close to the daily use of words by children as those who teach and write textbooks. In the field of educational and mental measurements the data in this study should be invaluable.

Rinsland then goes on to say:[1]

> It is definitely consistent with psychology of individual differences and the common scientific observation that ranges objectively determined are almost always wider than those subjectively estimated.

The general and specific importance of this study is stressed by the author. There are 11,061 different words that occur only once or twice in any grade. A few slang and children's expressions are also included in these words. The author states this, and makes note of the fact that even if the words appear only once, that this is of some value. Rinsland then goes on to say that he believes that upon further count the unpublished words might be more important.

As has been stated before, Rinsland found 25,632 different words. The complete list of these words is on file at the Bureau of Educational Research of the University of Oklahoma. Of these 25,632 different words, 14,571 words occurring three or more times in any one grade are given in alphabetical order in this publication. For each word is given the raw frequency--

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[1]Rinsland, op. cit. p. 20.

as it occurs in each grade--and the total frequency for all grades. Also, an index symbol of the frequency group by the hundred, five hundred, and thousand, into which each word falls is given.

Four significant frequency counts have been digested. They have been presented as to method of making and tabulating in final form the findings of each study. Also, the important points of the findings of each study have been presented. No attempt has been made to compare or pass judgment on any of them.

Each of these counts are of importance to shorthand writers and teachers.

For those interested in the real application of the results of these frequency counts, and a comparison of each, it is recommended that they read Louis A. Leslie's articles--listed in the bibliography.

CHAPTER III

PROCEDURES USED IN CONDUCTING THE WORD-FREQUENCY COUNT

With the aid and full cooperation of Mr. Steve Marshall of the Operations Department, and Mr. A. G. Thomas, Maintenance Training Superintendent, this word-frequency count was conducted at the Pan-American World Airways, LaGuardia Field, Jackson Heights, Long Island, New York.

As has been stated previously, this study was limited to a frequency count of the correspondence that was actually dictated in, or received by, this aviation concern.

It was decided, upon consultation with Mr. Thomas, and investigation of the various departments in the aviation concern, that three departments would give the writer a list of aviation terms, for such a limited count, that would be representative of those used by this aviation concern.

The three departments that were investigated in this word-frequency count were:

1. Maintenance (Engineering Division) Department.
2. Maintenance Training Department.
3. Meteorology Department.

Before conducting this word study, the writer became familiar with the various aviation terms (by themselves and in collocation) in the books set up as bases for recognition of

aviation terms. These books were Harold E. Baughman's "Aero-Thesaurus," Aviation Dictionary and Reference Guide,[1] and Henry Lionel Williams' Casey Jones Cyclopedia of Aviation Terms.[2] This was done to facilitate the recognition of words encountered in the word study as aviation terms.

In conducting the count, the following device was used to determine the amount of running words contained in a letter.

A right angle was placed so that the inside vertical edge came at the approximate middle of the right-hand margin (allowing for words typewritten past the set margin), and the inside horizontal edge was placed on the last writing line of the letter. The right angle was marked off in inches on both the vertical and horizontal edges.

It was determined that one square inch of single-spaced typewritten material contained 60 letters (6 writing lines of 10 letters each) of pica type, and 72 letters (6 writing lines of 12 letters each) of elite type.

By placing the right angle in the manner stated above, the number of inches was recorded as read along the vertical and horizontal edges. Then, to obtain the number of words in the

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[1] Harold E. Baughman. "Aero-Thesaurus," Aviation Dictionary and Reference Guide. Glendale, California, Aero-Publishers, Inc. 1942.

[2] Henry Lionel Williams. Casey Jones Cyclopedia of Aviation Terms. New York, McGraw-Hill Book Company, Inc. 1946.

letter being investigated, the following was done:

1. The number of inches, as read on the horizontal edge, was multiplied (depending upon the type used in the letter) by either 10 or 12.

2. This product was multiplied by the number of inches as read on the vertical edge. Since both pica and elite type have 6 writing lines in one square inch, this second step was justified.

For example: A letter typewritten in pica type giving the figures 6" x 2" would contain 120 running words. Multiplying the 6" read on the horizontal edge by 10 (letters on one writing line of one square inch) would give a product of 60. Multiplying this result by 2" (6 writing lines contained in one square inch) gives 120. This is the number of running words contained in the letter being investigated.

If the letter was typewritten in elite type, and the same figures as above were encountered, 6" x 2", it would contain 144 running words. Multiplying the 6" read on the horizontal edge by 12 (letters on one writing line of square inch) would give a product of 72. Multiplying this result by 2" (6 writing lines contained in one square inch) gives 144. This is the number of running words contained in the letter being investigated.

Allowance was made for double-spacing between paragraphs. This allowance was dependent upon the writing line (pica or elite) used. Here it was a matter of subtracting the number of

words in the writing line as determined by the number of inches read on the horizontal edge of the right angle. If pica type was used, and there were two paragraphs (6" being read on the horizontal edge), 60 letters would be subtracted from the total number of running words of the letter as determined by the right angle readings. Using the standard word (5 letters to one word), 12 words would be subtracted. This was done because one writing line is eliminated in double-spacing between paragraphs. If elite type was used, with the same horizontal reading of 6", 72 letters (14 words) would be subtracted from the total number of running words of the letter.

To account for indentations, the number of indentations in the letter were added, and the total subtracted from the result determined by the right angle readings.

If a letter was double-spaced, the result would be divided by two. This was done for both the pica and/or elite type used in the letters.

Readings, allowances for double-spaced letters, allowance for double-spacing between paragraphs, and indentations were put down as the investigation was being conducted. After the correspondence of each folder had been investigated, the above work was figured out.

To assure uniformity in conducting the word-frequency count, the following rules were used:

1. Only correspondence of the year 1946 was investigated, thus precluding any atypical war vocabulary. In this manner

only the latest peace time correspondence was investigated.

2. All aviation terms were recorded, with the following exceptions:

a. All proper names of persons, places, aviation agencies and concerns, and the names of months and days.

b. All official titles such as "Airline Maintenance Superintendent," "Operations Manager," and so on.

c. A list was made of aviation terms appearing with a very high frequency; but no record of the number of each occurrence of these aviation terms was made.

3. If there was any doubt as to a word being an aviation term, it was recorded as such.

4. Each aviation term was tabulated separately, and also as it was used in compounding for running composition (collocation).

5. All abbreviations and contractions of aviation terms were included.

6. All numerals or letters designating aviation concerns, agencies, parts, or types of planes were excluded.

7. The correct aviation terms were recorded, if any were spelled unusually or wrongly.

8. No attempt was made to record the various designations or labels of each folder that contained correspondence being investigated.

Only the latest correspondence was investigated in this word-frequency count. In this manner only the latest peace time correspondence incorporating aviation terms of modern usage was investigated.

It was decided to eliminate names of persons and places occurring in this count. The proper names were of no importance. The names of places had no bearing on this count. A special list was made of some of the aviation agencies and concerns encountered in this word study.

Correspondence prior to 1947 was filed by years. As has been stated above, only that correspondence handled by this aviation concern in 1946 was investigated. The names of months and days had no bearing on this count; they were excluded.

At times official titles appeared in the context of the letters being investigated. More often these official titles appeared at the bottoms of letters. They were so listed to show to which departments and/or persons they were to be distributed. Many times these titles were stamped on. A special list was made of these official titles; but no attempt was made to keep a record of their occurrence. A list of official titles was made available by Mr. A. G. Thomas, Maintenance Training Superintendent.

Aviation terms such as "airline" and "aircraft" appeared so often that it was decided not to keep a record of their occurrence. Rather, a separate list was made of these most-frequently occurring aviation terms.

At times the writer was confronted with a word which could not immediately be recognized as an aviation term. If any such doubt arose, the word was tallied as an aviation term.

Each aviation term was tabulated separately. If it also occurred in running composition (collocated), it was tallied as a separate aviation term, and also as the collocation.

Provision was made to record all abbreviations and contractions of aviation terms.

Many numerals and letters designating aviation concerns, agencies, parts, and types of planes were encountered in this word study. For example: Such numerals and letters as L-49, RC-2, and so on, were encountered. Also, various official governmental agencies were designated by letters such as C. A. A. for Civil Aeronautics Authority. They had no immediate bearing on this count; they were excluded.

Provision was made to record the correct aviation terms, if any were found to be spelled unusually or wrongly.

The folders that contained correspondence being investigated were properly labeled as to what sort of correspondence was contained therein. Such labels were not recorded. They had no direct bearing on this count.

The tallying method was used to tabulate the aviation terms. This method was chosen because of limited space; and the writer wanted to keep disruption of office routine to a minimum.

In the actual tabulation of aviation terms, sheets

8½" x 11" were used. The aviation terms were indexed on the left-hand side of the sheet as they occurred. A small vertical mark was made beside the aviation term and/or collocation for each occurrence. For each fifth occurrence of an aviation term and/or collocation a diagonal was drawn through the four vertical marks. Whenever a new aviation term appeared, and there was no space on the sheet for it, another sheet was employed.

In the above manner, adhering to the rules set up to secure uniformity in treatment, was this word-frequency count conducted.

The number of running words investigated in the Maintenance (Engineering Division) Department were 120,850.

The number of running words investigated in the Maintenance Training Department were 81,275.

The number of running words investigated in the Meteorology Department were 51,150.

A total number of 253,275 running words were investigated in this word-frequency count. It was believed that a word study of 250,000 running words would give a valid count for such a study as this. (See Table I on page 49A.)

It must be understood that something closer to 300,000 running words were investigated, for whenever fractional equivalents were encountered in right angle readings the lowest integral number was used for calculation purposes.

This concluded the work to be done on the premises of this

TABLE I

NUMBER OF RUNNING WORDS INVESTIGATED
IN THIS WORD-FREQUENCY COUNT

Departments	Number of Running Words Investigated
Maintenance - Engineering Division	120,850
Maintenance - Training Division	81,275
Meteorology	51,150
Total	253,275

TABLE I

NUMBER OF RUNNING WORDS INVESTIGATED
IN THIS WORD-FREQUENCY COUNT

Departments	Number of Running Words Investigated
Maintenance - Engineering Division	180,850
Maintenance - Treating Division	81,275
Meteorology	51,150
Total	283,275

aviation concern--Pan-American World Airways.

Two lists of these words had to be set up. One list would be set up alphabetically with the occurrence figure for each aviation term and/or collocation. The second list would contain these aviation terms and/or collocations in order of frequency. In the latter list, the most-frequently occurring aviation terms and/or collocations would be listed first, then those of lesser frequency.

Master sheets were used in preparing these lists. Sheets 9" x 14" were used for this work. The same method of tabulation was employed. The aviation terms and/or collocations were indexed at the left-hand side of the sheet as they were encountered. An aviation term was recorded only once. Beside these aviation terms were recorded the total number of tally marks found on the sheets used in conducting the count. By going through these sheets, all tally marks appearing beside the aviation term being observed were recorded beside the aviation term listed on the master sheet. This was done for all of the aviation terms.

After all of the aviation terms were listed and tallied on the master sheets, the tally marks were totalled for each aviation term.

After this totalling, other sheets (master-sheet size) were used to record these aviation terms in alphabetical order. As each aviation term was recorded alphabetically, the occurrence figure was placed beside it. In this manner were the

aviation terms alphabetized, and the first list set up.

Many collocations were found in this word study. In these collocations were aviation terms that were used in compounding for running composition.

The writer proceeded to make a separate list of these aviation terms in order of frequency occurrence. Aviation terms with the highest frequency were listed first, then those of lesser frequency.

All frequency figures were listed, including those aviation terms that occurred but once in the total number of 253,275 running words investigated.

The writer intended to make a separate list of words that were not truly peculiar to the aviation industry. This was ruled out when it was noted that the majority of the terms (aviation) were not peculiar to the aviation industry alone.

It was stated that any words contained in Harold E. Baughman's "Aero-Thesaurus," Aviation Dictionary and Reference Guide,[1] and Henry Lionel Williams' Casey Jones Cyclopedia of Aviation Terms[2] would be recognized as aviation terms in this word-frequency count. This statement was adhered to throughout the count. Aviation terms not appearing in these books were designated as such.

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[1]Baughman, op. cit.

[2]Williams, op. cit.

Boston University
School of Education
Library

The writer will present the results of the word-frequency count:

1. A list of the most-common aviation terms that occurred with such high frequency that no frequency count was made of them.

2. A list of the official titles encountered in the context of letters, and the bottoms of letters (for distribution to various departments and/or persons). These official titles will be listed by departments. This information was made available by Mr. A. G. Thomas, Maintenance Training Superintendent.

3. A list of some of the various aviation concerns and agencies encountered in this word-frequency count.

4. A list of the aviation terms, alphabetically, with the frequency figure beside each aviation term. Each aviation term will be listed by itself, and also as used in running composition (collocation).

5. A list of the aviation terms in order of frequency (highest to lowest), as determined by this count.

6. A list of the different words found in this word-frequency count.

The fourth and fifth lists are, of course, the results of this word-frequency count--as proposed and set up.

Any other pertinent information will be properly designated in these lists.

Thus was the word-frequency count of aviation terms con-

ducted at the Pan-American World Airways--and the results tabulated.

The results will now be shown.

CHAPTER IV

RESULTS OF THE WORD-FREQUENCY COUNT

These are the results as determined by the word-frequency count conducted at the Pan-American World Airways. Six lists will be presented.

The first list contains the most-frequently occurring aviation terms. These aviation terms occurred with such a high frequency that no frequency count was made of them. However, a record was made of these aviation terms as they occurred.

LIST I

AVIATION TERMS OMITTED IN THE WORD-FREQUENCY COUNT

1. Aircraft
2. Airline
3. Airplane
4. Airport
5. Airway
6. Crew
7. Cylinder
8. Engine
9. Engineering
10. Flight
11. Line Station
12. Maintenance
13. Maintenance Training
14. Meteorology
15. Pilot
16. Plane
17. Pressure
18. Schedule
19. Weather
20. Wing

The 20 aviation terms listed above were recorded during the word-frequency count; but no occurrence figures were kept.

CHAPTER IV

RESULTS OF THE WORD-FREQUENCY COUNT

These are the results as determined by the word-frequency count conducted at the Pan-American World Airways. Six lists will be presented.

The first list contains the most-frequently occurring aviation terms. These aviation terms occurred with such a high frequency that no frequency count was made of them. However, a record was made of these aviation terms as they occurred.

LIST I

AVIATION TERMS OMITTED IN THE WORD-FREQUENCY COUNT

1. Airport
2. Airline
3. Airplane
4. Airport
5. Airway
6. Crew
7. Cylinder
8. Engine
9. Engineering
10. Flight
11. Line Station
12. Maintenance
13. Maintenance Training
14. Meteorology
15. Pilot
16. Plane
17. Pressure
18. Schedule
19. Weather
20. Wing

The 20 aviation terms listed above were recorded during the word-frequency count; but no occurrence figures were kept.

Each appeared well over 300 times. Some of these aviation terms occurred at least 500 times.

It will be noted that some of these terms are not strictly aviation terms. However, they were included in collocation; and the writer believed justified in listing them as aviation terms, and omitting them from the record of occurrence figures.

The second list consists of the official titles, by departments, in the Atlantic Division of Pan-American World Airways, New York Airport Station, LaGuardia Field, New York.

LIST II

TITLES OF SUPERVISORY PERSONNEL AND INDIVIDUALS UNDER THEIR SUPERVISION

EXECUTIVE DEPARTMENT

Division Manager
Assistant to Division Manager
Budget Officer
  Statistical Analysts (2)
  Junior Accountant
Public Relations Manager
  Press Relations Manager
  Public Relations Representative
  News Feature Specialist
  "Clipper" Editor
  Press Writer
  Senior Photographer
Regional Directors & Regional Managers
Assistant Division Manager - Planning

OPERATIONS DEPARTMENT

Operations Manager
Operations Schedule Coordinator
Superintendent of Flight Operations
  Assistant to Superintendent Flight Operations
  Chief Navigator

such appeared well over 300 times. Some of these aviation terms occurred at least 800 times.

It will be noted that some of these terms are not strictly aviation terms. However, they were included in collocation; and the writer believed justified in listing them as aviation terms, and omitting them from the record of occurrence figures.

The second list consists of the official titles, by departments, in the Atlantic Division of Pan-American World Airways, New York Airport Station, LaGuardia Field, New York.

LIST II

TITLES OF SUPERVISORY PERSONNEL AND INDIVIDUALS

UNDER THEIR SUPERVISION

EXECUTIVE DEPARTMENT

Division Manager
Assistant to Division Manager
Budget Officer
Statistical Analysts (2)
Junior Accountant
Public Relations Manager
Press Relations Manager
Public Relations Representative
News Feature Specialist
"Clipper" Editor
Press Writer
Senior Photographer
Regional Directors & Regional Managers
Assistant Division Manager - Planning

OPERATIONS DEPARTMENT

Operations Manager
Operations Schedule Coordinator
Superintendent of Flight Operations
Assistant to Superintendent Flight Operations
Chief Navigator

Chief Pilot
Staff Assistant - Scheduling
Assistant Chief Pilot - Technical
Operations Engineer
Assistant Chief Pilot - Personnel
Assistant Chief Pilot - Administrative
Chief Flight Training Instructor
Ground Training Supervisor
Link Instructor
Master Pilot
First Officer
Second Officer (Navigator)
Third Officer
Flight Engineer Officer
Assistant Flight Engineer Officer
Flight Radio Officer
Assistant Flight Radio Officer
Purser
Steward and/or Stewardess
Chief Dispatcher
Division Meteorologist
Training Supervisor
Technical Assistant
Records Supervisor
Assistant Division Meteorologist
District Meteorologist
Station Meteorologist

MAINTENANCE DEPARTMENT

Division Engineer
Assistant Division Engineer
Maintenance Training Superintendent
Assistant Maintenance Training Superintendent
Maintenance Superintendent
WAC Factory Inspector
Assistant to Maintenance Superintendent
Superintendent Line Station Maintenance
Assistant Sup't. Line Station Maintenance
Airline Maintenance Sup't. - Domestic
Airline Maintenance Sup't. - Foreign
Section Maintenance Supervisors - (3)
Production Control Superintendent
Assistant to Production Control Sup't.
Job Study Coordinator
Statistical Analyst
Aircraft Work Schedule Coordinator
Shop Work Schedule Coordinator
Aircraft Routing Coordinator
Shop Superintendent
Assistant Shop Sup't. (Administrative)

Assistant to Shop Superintendent
Departmental Assistant
Assistant Shop Superintendent - Plane Service
Foreman Plane Service (5)
Assistant Foremen in Chrg. Plane Service
Assistant Foreman Plane Service (7)
Assistant Foreman in Chrg. Short Service
Assistant Foreman Short Service (6)
Foreman and Assistant of Metal Shop
Foreman and Assistant of Fabric & Equip. Shop
Foreman and Assistant of Accessory Shop
Foreman and Assistant of Paint Shop
Foreman and Assistant of Propeller Shop
Foreman and Assistant of Machine Shop
Foreman and Assistant of Instrument & Electrical Shop
Foreman and Assistant of Automotive Shop
Foreman of Modification Crew

Senior Staff Engineer
Production Assistant
Staff Maintenance Engineer
Instrument and Electrical Engineer
Power Plant Engineer
Aircraft Engineer
CAA, Wt. & Bal. Engineer
Chief Draftsman
Maintenance Publications Editor
B-377 Project Engineer
Staff Analysis Engineer
Specifications Engineer
Special Projects Engineer
Service Troubles Engineer
Cost Control Engineer
Chief Flight Engineer
Asst. Chief Flight Engineer - Administrative
Asst. Chief Flight Engineer - Technical
Asst. Chief Flight Engineer - Training (3)
Chief Inspector
Assistant Chief Inspector
Asst. Chief Inspector (Office Organization & Tng.)
Asst. Chief Inspector (Shifts)
Asst. Chief Inspector (Shifts) (3)

AIRWAYS SECTION

Airways Superintendent
Assistant Airways Superintendent
Building Superintendent
Carpenter Shop Foreman
Chief Guard

TRAFFIC DEPARTMENT

- Traffic Manager
  - Assistant Traffic Manager
  - Assistant to Traffic Manager
- Statistical Assistant
- Personnel Assistant
- Training Assistant
- Clearance Assistant
- Passenger Traffic Manager
  - Assistant Passenger Traffic Manager
  - Iata Assistant
  - Tariff Assistant
  - Publications Assistant
    - Publications Supervisor
    - Publications Clerk
  - Agency - Interline Assistant
    - Senior Passenger Traffic Clerk
- Advertising Manager
- Sales Manager
- Passenger Service Manager
  - Assistant Passenger Service Manager
  - Ground Service Superintendent
  - Commissary Superintendent
  - Flight Service Superintendent
  - Assistant to Passenger Service Manager
- Express Mail Manager
  - Assistant Express Mail Manager
  - Mail Superintendent
  - Express Superintendent

FIELD DEPARTMENT

- Field Superintendent
- Assistant to - Personnel & Training
- Training Assistant
- Airport Superintendent
- Equipment Assistant
- Statistical Officer
- Publications Officer
- Publications Assistant

SERVICE DEPARTMENT

- Administrative Assistant to the Division Manager
- Medical Director
  - Medical Officer
  - Head Nurse
- Legal Officer
  - Insurance Officer
- Office Manager

Division File Supervisor
Librarian
Supervisor Steno Pool
Assistant to Office Manager
Supervisor Mail Room
Supervisor Duplicating Room
Publications Distribution Officer
Division Accountant
Administrative Asst. to Division Accountant (3)
Bookkeeping Supervisor
Payroll Supervisor
Property Records Supervisor
Financial Statements Supervisor
Cost Accounting Supervisor
Coding and Expense Distribution Supervisor
Statistical Supervisor

INDUSTRIAL RELATIONS DEPARTMENT

Industrial Relations Manager
Assistant Industrial Relations Manager
Personnel Placement Supervisor
Service Supervisor
Wage and Policy Supervisor
Records Supervisor
Industrial Safety Superintendent

SERVICES OF SUPPLY DEPARTMENT

Division Supply Manager
Assistant to Division Supply Manager
Supply Transportation Supervisor
Stores Agent
Assistant Stores Agent
Senior Storekeeper - Main Base
Storekeeper - Training and Procedure
Storekeeper - Records
Jr. Storekeepers - Main Base (8)
Line Station Supply Superintendent
Storekeeper - Line Station
Fuel Representative

COMMUNICATIONS DEPARTMENT

Communications Superintendent
Assistant to Communications Superintendent
Radio Service Engineer
Assistant Communications Superintendent
Communications Supervisor
Chief Flight Radio Officer
Communications Training Supervisor
Staff Assistant

A stenographer will probably use the titles of her specific department more than those of other departments. However, a stenographer must have a knowledge of the titles of all personnel in the aviation concern. These titles will not vary much in any one aviation concern.

The third list consists of some of the aviation concerns and agencies that render service to the aviation industry.

LIST III

AVIATION CONCERNS AND AGENCIES RENDERING SERVICE TO THE AVIATION INDUSTRY

CONCERNS

1. Aero Industries Technical Institute, Inc.
2. Air Associates, Inc.
3. Aircraft Industries, Inc.
4. American Airlines, Inc.
5. Curtiss-Wright Corp.
6. Douglas Aircraft, Inc.
7. Eastern Air Lines, Inc.
8. Grumman Aircraft Engineering Corp.
9. Pan-American World Airways, Inc.
10. Transcontinental & Western Air, Inc.
11. United Air Lines Transport Corp.
12. Western Propeller Repair

AGENCIES

1. Aero Industries Technical Institute.
2. Boeing School of Aeronautics.
3. Chicago School of Aeronautics.
4. Curtiss-Wright Technical Institute of Aeronautics.
5. Civil Aeronautics Authority.
6. Civil Aeronautics Board.
7. Air Safety Board.
8. United States Weather Bureau.
9. United States Army Air Corps.

The following lists contain the major results of the purpose of this word-frequency count.

The fourth list contains the aviation terms in alphabetical order, by themselves and in collocation.

No attempt was made to weight these aviation terms because of the limited count conducted.

Some of these aviation terms are not truly peculiar to the aviation industry. Many of them are technical terms. The writer, however, believed justified in presenting these terms. A stenographer will frequently encounter such terms in the aviation industry, and a knowledge of these technical terms will greatly facilitate initial efficiency on the job.

There were 20 aviation terms omitted because they occurred with unusual frequency. They have been listed above. However, a frequency occurrence figure has been placed beside these aviation terms. This figure is a total of all the times that these omitted aviation terms appeared in compounding for running composition (collocation) in this count. These figures have been placed in parentheses.

"Air" was not encountered in this word-frequency count to any great extent. No attempt was made, however, to keep a record of its occurrence. Parentheses have been placed about the frequency figure beside this term to show with what frequency it occurred in collocation.

Two omitted aviation terms were not found in collocation in this count. They were "Engineering" and "Meteorology."

These aviation terms have been included in this fourth list. No footnote is used to point out that these two terms were not found in collocation in this word-frequency count.

The frequency figures of the aviation terms encountered in the Meteorology Department have been underscored. This device designates those aviation terms found to be peculiar to the Meteorology Department.

If the frequency figures are not underscored, it will be construed that those aviation terms were encountered in the Maintenance Departments, and possibly the Meteorology Department.

Asterisks have been placed after some aviation terms. These asterisks denote that these aviation terms were not found in the books designated as bases for recognition of aviation terms. (See footnote on page 43.)

Footnotes are used in the following lists to simplify identification of the symbols used.

In this word-frequency count 964 aviation terms, by themselves and in collocation, were found. Sixty-six (66) of these 964 aviation terms were found to be peculiar to the Meteorology Department.

No attempt was made to distinguish between the Maintenance (Engineering and Training) Departments' terminology to determine the different aviation terms found in each.

LIST IV

AVIATION TERMS (ALPHABETICALLY) AND FREQUENCY OCCURRENCE

(See footnotes for identification of symbols)[1]

A

Abrasive, 5[a]

Absolute Altimeter, 1[b]

Absolute Altitude, 1

Absolute Humidity, 2

Absolute Pressure, 7

Absolute Temperature, 3

Absolute Zero, 1

Absorption, 6

Absorption Process, 1

Acceleration, 19

Accessory Drive Shaft, 3

Accessory Gear Train, 1

Accessories, 45

Accident Report, 23

Accumulator, 7

Acetate Dope, 2

Acetylene, 18

Actualizing Strut, 1

Actuating Nose Cylinder, 1

Actuator, 11

Adjustable Pitch Propeller, 17

Adjustable Propeller, 3

Adjustable Stabilizer, 1

Aerial, 3

Aerometer, 1

Aeronautical Charts, 10

Aerophare, 5*[c]

Aft, 5

Aft Belly, 2

[1a]Aviation terms designated with only the frequency occurrence figures were found that many times in this word-frequency count.

[b]Underscoring of the frequency occurrence figures designates those aviation terms peculiar to the Meteorology Department.

[c]Asterisks denote those aviation terms not found in the books designated as bases for recognition of aviation terms. (See footnote on page 43.)

LIST IV

AVIATION TERMS (ALPHABETICALLY) AND FREQUENCY OCCURRENCE

(See footnotes for identification of symbols)[1]

A

Abrasive, 5[a]

Absolute Altimeter, 1[b]

Absolute Altitude, 1

Absolute Humidity, 2

Absolute Pressure, 7

Absolute Temperature, 3

Absolute Zero, 1

Absorption, 8

Absorption Process, 1

Acceleration, 19

Accessory Drive Shaft, 3

Accessory Gear Train, 1

Accessories, 45

Accident Report, 23

Accumulator, 7

Acetate Dope, 2

Acetylene, 18

Actualizing Strut, 1

Actuating Hose Cylinder, 1

Actuator, 41

Adjustable Pitch Propeller, 17

Adjustable Propeller, 3

Adjustable Stabilizer, 1

Aerial, 3

Aerometer, 1

Aeronautical Charts, 10

Aeroquare, 5[c]

Aft, 5

Aft Belly, 2

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[1]Aviation terms designated with only the frequency occurrence figures were found that many times in this word-frequency count.

[b]Underscoring of the frequency occurrence figures designates those aviation terms peculiar to the Meteorology Department.

[c]Asterisks denote those aviation terms not found in the books designated as bases for recognition of aviation terms. (See footnote on page 45.)

Air, (705)[d]
Air Brakes, 26
Air Carrier, 31
Air Conditioner, 1
Air Controls, 13
Air-Cooled Cylinder, 4
Air-Cooled Engine, 12
Air Cooler, 1
Aircraft, (71)
Aircraft Bearings, 18
Aircraft Cable, 1
Aircraft Electricity, 15
Aircraft Engine, 4
Aircraft Fabric, 3
Aircraft Functional System, 23
Aircraft Heater, 4
Aircraft Wire, 3
Air-Driven, 17
Air Duct, 1
Air Express, 3
Air Filter, 1
Air Flow, 27
Air Frame, 6
Air Fuel Valve, 1
Air Induction, 1
Airline, (204)
Airline Certificates, 7
Airline Hangar & Repair Shop, 1
Airline Maintenance, 98
Airline Maintenance Training, 76
Airline Pilot, 22
Air Mail, 5
Air Markers, 3
Air Mass, 1
Airplane, (105)
Airplane Assembly, 53
Airplane Fabric, 4
Airplane Lights, 3
Airplane Structure, 15
Airplane Tail Assembly, 11
Airport, (21)
Airport Traffic Control Tower, 3
Air Pressure, 13
Air Relay, 12
Air Scoop, 9
Airsickness, 15

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[d]Parentheses have been placed about the frequency occurrence figures of those aviation terms omitted from this word study because of their unusual frequency. These figures denote the number of times these aviation terms were found in collocation in this word-frequency count.

Air Speed, 23
Air Speed Indicator, 7
Air Temperature Indicator, 1
Air Transport, 18
Air Valve, 11
Air Valve Actuator, 8
Airway, (15)
Air Weight, 17
Alcohol, 24
Aldis Lamp, 1*
Alignment, 19
Allowance, 35
Alloy, 14
Alternate Autosyn, 3
Alternate Manifold Pressure Gage, 2
Alternate Torquemeter, 1
Altimeter, 10
Altitude, 56
Altitude Gyro-, 1
Aluminum, 37
Anemometer, 1
Anemostat, 1*
Angle of Pitch, 16
Angle Section, 12
Angle Template, 2
Antenna, 4
Anti-Icer Fluid, 1
Apparatus, 17
Approach Light, 4
Arrival, 37
Assembly, 150
Astrocompass, 1*
Astrodome, 6*
Astrodome Defroster Line, 1*
Automatic Direction Finder, 1
Automatic Gyro-Pilot, 1
Automatic Pilot, 12
Automatic Pilot Mock-Up, 7
Automatic Valve, 1
Auto-Pilot, 19
Auto-Pilot Bank and Climb Indicator, 3
Auto-Pilot Engine, 1
Auto-Pilot Hydraulic System, 2
Auto-Pilot Pump, 1
Auto-Pilot Tank, 1
Autosyn, 20
Autosyn System, 7
Auxiliary Equipment, 18
Auxiliary Fuel Tanks, 3
Aviation, 19

B

Backlog, 1
Backwash, 3
Bakelite, 17
Balanced Surface, 3
Balloon, 4
Bank and Climb Controls, 1
Bank and Climb Indicator, 21
Bank Indicator, 4
Bank and Turn Indicator, 1
Bank and Turn Needle Valve, 1
Barometer, 4
Base, 21
Basic Electricity
Basic Load, 5
Basic Trainer, 22
Battery, 3
Beaching Crew, 16
Beaching Gear, 7
Beacon, 19
Bearing, 27
Bearings, 21
Belly, 18
Belly Compartment, 10
Bench Assembly, 17
Blade, 9
Blade Angle, 2
Blade Section, 1
Blind Flying, 2
Blind Landing, 3
Blind Landing Indicator, 1
Blinker Light, 26
Block, 4
Block-in-Scoop, 1
Blower, 1
Boost, 25
Booster Control, 15
Booster Pump, 1
Body, 16
Body Plan, 3
Brace, 11
Brakes, 37
Breaker Panel, 1
Breaker Point, 1
Breathing Oxygen Cylinder, 1
Briefing, 20
Buffet, 4
Bulkhead, 23
Bushings, 7
Butterfly Valve, 2
Bypass, 2
Bypass Valve, 1

C

Cabin, 49

Cabin Fairleads, 7

Cabin Fan, 11

Cabin Fan Motor, 3

Cabin Pressure Regulating System, 5

Cabin Pressure Regulator, 1

Cabin Pressurization, 1

Cable, 3

Calibrate, 11

Call-Pilots, 2

Calm, 8

Cam, 3

Camshaft, 1

Canvas, 17

Canvas Bulkhead, 8

Capacity, 51

Carburetor, 81

Carburetor Engine, 14

Cargo, 24

Cargo Handling, 4

Cargo Plane, 1

Cargo Plate, 1

Cargo Weight, 11

Carrier, 42

Cellophane, 3

Ceiling, 8

Centerpiece, 10

Centerpiece Section, 4

Center Rudder Tube, 3

Centigrade, 11

Certificates, 18

Chamber, 41

Change Crew, 3

Charts, 22

Chocks, 7

Civil Airway, 15

Clamshell, 1

Clearance, 31

Climate, 13

Climb, 35

Climb Indicator, 31

Clock, 3

Clockwise, 3

Cloudiness, 11

Clouds, 10

Cockpit, 23

Coefficient, 14

Cold Wave, 8

Collector Ring, 10

Combustion, 18

Combustion Chamber, 5

Commercial Airplane, 14
Commercial Plane Service, 21
Command, 3
Communication, 24
Commutator, 12
Compartment, 37
Compartment Bunks, 13
Compass, 4
Compass Compensation, 1
Compass Component, 1
Compensation, 4
Component, 4
Compression, 6
Compression Ignition Engine, 1
Condensation, 7
Conduction, 1
Cone, 3
Connecting Rod, 4
Contour, 1
Control, 93
Control Pedestal, 8
Control Section, 2
Control Weight, 2
Control Wheel, 1
Controllable Counter-Weight Propeller, 1
Controllable Pitch Propeller, 5
Controllable Propeller, 1
Co-Terminals, 2
Counter-Balance, 14
Counter-Weight, 15
Counter-Weight Propeller, 4
Course, 19
Cover, 45
Covering, 34
Cover Plate, 1
Cowl, 39
Cowl Flaps, 22
Cowl Flap Operating Cylinder, 2
Cowling, 7
Cowling Flaps, 3
Crew, (229)
Crew Briefing, 11
Crew Compartment Bunks, 16
Crew Room, 7
Cross-Feed, 26
Cross-Way, 1
Cruiser, 11
Cured Flap, 1
Cut-Away, 19
Cut Out, 12
Cylinder, (41)
Cylinder Head, 19

Commercial Airplane, 14
Commercial Plane Service, 21
Command, 3
Communication, 24
Commutator, 12
Compartment, 37
Compartment Bunks, 13
Compass, 4
Compass Compensation, 1
Compass Component, 1
Compensation, 4
Component, 4
Compression, 5
Compression Ignition Engine, 1
Condensation, 7
Conduction, 1
Cone, 3
Connecting Rod, 4
Contour, 1
Control, 23
Control Pedestal, 8
Control Section, 2
Control Weight, 2
Control Wheel, 1
Controllable Counter-Weight Propeller, 1
Controllable Pitch Propeller, 3
Controllable Propeller, 1
Co-Terminals, 2
Counter-Balance, 14
Counter-Weight, 15
Counter-Weight Propeller, 4
Course, 19
Cover, 45
Covering, 34
Cover Plate, 1
Cowl, 30
Cowl Flaps, 22
Cowl Flap Operating Cylinder, 9
Cowling, 7
Cowling Flaps, 3
Crew, (222)
Crew Briefing, 11
Crew Compartment Bunks, 16
Crew Room, 7
Cross-Feed, 26
Cross-Way, 1
Cruiser, 11
Cured Flap, 1
Cut-Away, 19
Cut Out, 12
Cylinder, (41)
Cylinder Head, 19

Cylinder Head Temperature Indicator, 5

Cylinder Temperature Indicator, 3

D

Deceleration, 2

Declination, 1

Deflection, 3

Defroster, 2

Defroster Line, 1

Degree, 6

De-Icer, 43

De-Icer Fluid, 6

De-Icer Vacuum Shut-Off Valve, 1

Density, 1

Departure, 21

Depression, 3

Depth Gage, 1

Design, 40

Deviation, 1

Diaphragm, 5

Differential, 16

Direct Fuel Engine Pump, 1

Direct Fuel Injection, 15

Direction Finder, 15

Direction Indicator, 24

Directional Gyro-, 21

Directional Gyro-Control, 1

Directional Gyro-Counter Unit, 1

Displacement, 4

Distance, 19

Distribution, 7

Distributor Head, 1

Divergence, 1

Dock, 6

Docking, 3

Dolly, 4

Dope, 4

Doped Surface, 1

Double Flange, 1

Doubler, 1

Down Draft, 1

Draft, 15

Draft Release, 2

Drag, 7

Drain Tube Flange, 1

Drift, 18

Drift Indicator, 2

Drift Pump, 1

Drift Signal Flare, 1

Dual Ignition System, 1
Dual Flap Position Indicator, 1
Dual Fuel Flow Indicator, 1
Dual Tachometer, 1
Duct, 7
Dump Chute, 3
Duragage, 1*

E

Electrical Crews, 4
Electrical Main, 1
Electrical System, 10
Electricity, 25
Elevator, 2
Embossing, 5
Emergency Crews, 9
Emergency Flaps, 2
Empennage, 1
Empty Weight, 1
Endurance, 2
Energy, 17
Engine, (172)
Engine Control, 6
Engineering
Engine Fuel Selector Valve, 1
Engine Ignition Analyzer, 7
Engine Mount, 11
Engine Overhaul, 30
Engine Overhaul Time, 14
Engine Trouble-Shooting, 2
Equator, 1
Equipment, 57
Evaporation, 4
Exhaust, 19
Exhaust Manifold, 5
Exhaust System, 8
Exhaust Valve, 2
Exposure, 2
Express, 7
Extension, 4
Extension Brake Valve, 1

F

Fabric, 26
Fabric Covering, 4
Fabric Equipment, 1
Fahrenheit, 1
Fairing, 6
Fairleads, 9
Fan, 24
Fan Motor, 3
Feathering, 29
Feathering Hub, 2
Feathering Propeller, 14

Feathering Pump, 1
Ferry, 7
Ferry Crew, 4
Field, 55
Filter, 11
Filter Installation, 3
Fins, 29
Fire Control, 5
Fire Extinguishers, 11
Fire Wall, 18
Fire Wall Installation, 9
Fire Wall Panel, 3
Flange, 8
Flap, 112
Flap Assembly, 19
Flap Indicator, 17
Flap Indicator Needle, 1
Flap Operating Cylinder, 3
Flap Position, 36
Flap Position Indicator, 19
Flap Position Transmitter, 1
Flap System, 4
Flapper Valve, 1
Flare, 16
Flare Release, 4
Flare Release Fuse, 1
Flashlight, 5
Flashlight Storage, 2
Flight, (278)
Flight Crew, 19
Flight Engineer's Panel, 2
Flight Indicator, 1
Flight Operations, 78
Flight Plan, 5
Flight Schedules, 58
Floodlight, 3
Flowmeter Test Room, 1
Fluid, 16
Fluid De-Icer, 7
Flying, 38
Fog, 33
Forecast, 25
Foreign Airports, 18
Foreign Stations, 66
Forward Belly, 1
Forward Sump, 1
Fowling, 3
Frame, 8
Friction, 4
Frost, 1
Fuel, 187
Fuel Capacity, 15

Fuel Cross-Feed Shut-Off Valve, 3
Fuel Flow Indicator, 5
Fuel Group, 1
Fuel Injection, 79
Fuel Injection Engine, 55
Fuel Lag, 1
Fuel Line, 14
Fuel Pressure, 19
Fuel Pressure Gage, 7
Fuel Pressure Indicator, 5
Fuel Schedules, 1
Fuel Service, 3
Fuel System, 4
Fuel Tank, 12
Fuel Tank Vent, 8
Fuel Time, 1
Functional System, 31
Fuselage, 91
Fuselage Strut Wing Piping, 1

G

Gage, 84
Galley, 3
Galley Unit, 2
Gap, 1
Gasoline, 9
Gasoline Tank, 3
Gear, 71
General Servicing, 1
Generator, 11
Glass, 6
Glide, 2
Glider, 4
Glider Training, 1
Glue, 15
Governor, 8
Governor Control, 3
Grade, 1
Gradient, 7
Gravity, 1
Grommets, 6
Gross Weight, 8
Ground, 82
Ground Equipment, 5
Ground Fog, 7
Ground Handling, 16
Ground Operations, 21
Ground Speed, 1
Ground Stations, 1
Gusset, 1
Gyro-, 66
Gyro-Control, 16
Gyro-Pilot, 19

Gyro-Remote Indicator, 1
Gyroscope, 1
Gyrosyn, 3*

H

Hand Hydraulic Replenish Pump, 1
Hangar, 25
Hangar Floor, 3
Haze, 3
Head Wind, 1
Heating and Ventilating System, 3
Heavy Jack, 2
Heavy Landing Gear, 1
Heavy Landing Gear Struts, 5
Heavy Rib, 1
Heavy Wheel Retracting Cylinder, 3
Heavy Wheel Steering Accumulator, 2
Heavy Wheel Steering Cylinder, 1
Heavy Wheel Steering Valve, 1
High, 27
High Pressure Direct Fuel Injection Line, 1
Hinge Seal, 4
Horizon, 2
Horizontal, 16
Horizontal Auto-Pumps, 3
Horizontal Fin, 1
Horizontal Fluid De-Icer, 1
Horizontal Stabilizer, 3
Horsepower, 21
Hours, 33
Hub, 41
Hull, 6
Humidity, 13
Hydraulic, 68
Hydraulic Fluid Reserve Tank, 1
Hydraulic Lock, 1
Hydraulic Pump, 3
Hydraulic System, 11
Hydraulic System Pressure Gage, 1
Hydro-Air Fuel Valve, 1
Hydrometer, 1

I

Ice Lights, 1
Identification Lights, 3
Ignition, 51
Ignition Breaker, 3
Ignition System, 31
Ignition Time, 4
Immigration Authorities, 7

Inboard, 6

Inboard Corner, 3

Inboard Engine, 3

Increment, 1

Indicator, 161

Indicator Needle, 34

Induction, 17

Induction System, 2

Inflow, 1

Injection, 89

Injection Pumps, 2

Intake Manifold, 1

Intake Stroke, 3

Intake Valve, 7

Instrument, 56

Instrument Landing, 3

Instrument Lights, 1

Instrument Panel, 3

Instrument Switches, 1

Integral Fuel Tank, 1

Interchamber Flap Position Indicator, 1

Interphone Brackets, 1

Issue, 31

J

Jacks, 4

Jig, 3

K

Kilowatt, 1

Kilo-, 1

Kilometer, 3

King Post, 1

L

Lacquer, 1

Landing, 175

Landing Field, 8

Landing Flaps, 3

Landing Gear, 65

Landing Gear and Flap Position Indicator, 1

Landing Gear Retraction, 2

Landing Gear System, 14

Landing Indicator, 10

Landing Lights, 3

Landing Speed, 1

Landing Weight, 1

Landplane, 19

Landplane Service, 4

Landmark Beacon, 4

Latitude, 13

Layout, 6

Layout Drawing, 3

Lead, 6
Leading Edge, 2
Left-Side Engine, 1
Liaison, 10
License, 26
Life Jacket, 5
Life Raft Storage, 7
Lift, 3
Lights, 81
Line Inspection, 21
Line Crews, 40
Line Service, 38
Line Station, (61)
Line Station Maintenance, 61
Liquid-Cooled Engine, 1
Load, 28
Lock, 12
Locking Bar, 1
Log, 17
Logarithm Forms, 1
Logarithm Sheets, 1
Longitude, 13
Loudspeaker, 3
Low, 15
Low Pressure, 4
Low Pressure Area, 4
Lubricant, 18
Lubrication, 7

M

Magnetic, 15
Magnetic Compass, 5
Magnetic Tachometer, 2
Magneto, 3
Magnitude, 1
Magnosyn, 6*
Mail, 19
Main, 28
Main Base, 15
Main Cabin, 3
Main Engine Sump, 1
Main Landing Gear, 2
Main Landing Gear Fulcrum Keys, 1
Main Landing Gear Struts, 4
Main Landing Wheels, 1
Maintenance, (343)
Maintenance Supervision, 37
Maintenance Training, (71)
Mandrel, 1
Maneuver, 16
Maneuverability, 7

Manifold, 88

Manifold Fuel Pressure Gage, 14

Manifold Pressure, 54

Manifold Pressure Indicator, 9

Map, 5

Mass, 1

Mast, 3

Master Gyrosyn, 1*

Material, 41

Maximum, 29

Maximum Cruising Range, 15

Maximum Range, 3

Maximum Thermometer, 1

Mechanical, 13

Mechanical Convection, 1

Mechanical De-Icers, 1

Mechanical Stabilizer, 1

Metal, 5

Meteorology

Meter, 23

Minimum, 3

Mist, 1

Mock-Up, 36

Modification, 24

Modification Crew, 8

Modification-Dual Flap Position Indicator, 1

Modification-Oil Pressure Gage, 2

Modification-Interchamber Flap Position Indicator, 1

Motor, 39

Mount, 32

N

Nacelle, 7

Nadir, 1

Needle Valve, 18

Net Bulkhead, 1

Net Weight, 3

Nose, 99

Nose Cowl, 16

Nose Gear, 39

Nose Gear Brace, 7

Nose Gear-Brace Strut Collar, 1

O

Observation, 5

Observation Deck, 1

Octane, 12

Octane Rating, 4

Oil, 48

Oil Filter, 3

Oil Pump, 4
Oil Temperature Gage, 1
Oil Temperature Regulator, 5
Oil Tank, 15
Oil Tank Vent, 3
Operations, 161
Operations Flight, 59
Operating Speed, 13
Order, 24
Orientation, 3
Outboard, 10
Outboard Engine, 6
Outboard Side, 4
Over-All Length, 12
Overcast, 3
Overflow, 11
Overflow Scupper, 3
Overhand, 1
Overhaul, 67
Overhaul Shops, 4
Overhaul Time, 1
Oxidizing Flame, 1
Oxygen, 18

P

Panel, 25
Panel Assembly, 11
Panel Separator Bushings, 1
Parking, 10
Parts, 8
Passengers, 44
Passenger Capacity, 21
Passenger Service, 13
Passenger Traffic Handling, 2
Passport, 15
Pattern, 21
Pedal, 13
Pedestal, 19
Performance, 29
Pilot, (101)
Pilot's Instrument Panel, 15
Pilot Ratings, 5
Pilot's Stations, 14
Piping, 1
Piston, 28
Piston Rings, 13
Pitot Tube, 1
Plan, 34
Plan View, 12
Plane, (82)
Plane Service, 35
Planner, 12
Planning-Tow Target, 2

Plastics, 3
Plate, 1
Plug Fowling, 1
Plywood, 5
Position, 83
Position Indicator, 48
Position Indicator Transmitter, 19
Power, 18
Power Stroke, 3
Pressure, (201)
Pressure Flap, 14
Pressure Fuel System, 17
Pressure Gradient, 1
Pressure Pattern Flying, 2
Pressure Regulator, 21
Pressurization, 4
Prime Meridian, 3
Process, 18
Profile, 13
Program, 39
Project, 28
Proof List, 1
Proofing, 12
Propeller, 74
Propeller Blade, 4
Propeller Control, 2
Propeller De-Icer Fluid, 4
Propeller Hub, 12
Propeller Governor, 3
Propeller Governor Control, 1
Propeller Shaft, 1
Propeller Section, 2
Proving Flight, 5
Provisional Weight, 1
Pumps, 43
Puralator, 2
Pyrotechnic Pedestal, 1

Q

Quadrant, 18
Quadrant Flap, 2
Quenching, 1

R

Radar, 2*
Radar Sondes, 2*
Radial Engine, 1
Radiation, 3
Radio, 7
Radio Communication, 3
Ramp, 17
Rate of Climb, 8
Rate of Climb Indicator, 2
Reaction, 12

Rear Sump, 1
Recognition Lights, 2
Refueling, 3
Regulator, 40
Relative Humidity, 1
Relay, 23
Release, 4
Release Fuse, 1
Remote Indicator, 1
Reserve Tank, 43
Resin, 4
Retract, 15
Retractible, 65
Retraction, 14
Retractible Landing Gear, 8
Retractor Strut, 1
Reversible Propeller, 1
Ribs, 19
Rigger, 2
Right Fuel Tank, 13
Rivet Gun, 1
Roll Out, 1
Router, 8
Rowen, 2*
Rowen Observers, 1*
Rudder, 19
Rudder Pedal, 4
Rudder Torque, 1
Run-Up, 7
Runway, 18

S

Safety Flare, 2
Safety Flare Switch, 1
Salvage Crew, 1
Saturation, 1
Scale, 5
Scheduled Flights, 46
Schedules, (132)
Scoop, 24
Screw, 14
Screw Pitch Gage, 1
Scupper, 3
Sealing, 4
Seaplane, 2
Section, 45
Self-Aligning Bearings, 1
Separator, 19
Separator Bushings, 3
Separation, 5
Service, 185
Service Crews, 49
Servicing, 25

Shaft, 11
Shellac, 3
Shimmy, 4
Shimmy Damper, 1
Ship, 41
Shipping Order, 16
Shock Absorber, 3
Shore, 1
Short Service, 50
Short Service Crews, 42
Signal, 15
Signal Flare, 3
Skid, 7
Snap Gage, 1
Sondes, 2
Span, 11
Spar, 3
Spares, 10
Spares Storage, 7
Specifications, 22
Speed, 58
Stability, 24
Stabilizer, 31
Staking, 3
Stall, 2
Stall Handling, 1
Standby Plane, 12
Starter, 29
Static, 3
Station, 174
Station Maintenance, 83
Steering, 32
Stewardess, 15
Storage, 35
Stores, 34
Stores Issue, 22
Storm, 12
Storm Warning, 7
Strato-Cruiser, 3
Structure, 19
Struts, 46
Stub-Wing, 2
Stub-Wing Stabilizer, 1
Suction, 3
Suction Gage, 1
Sump, 33
Sump Tank, 7
Supercharger, 17
Supply, 13
Synchroscope, 1
System, 177

T

Tail, 44
Tail Assembly, 11
Tail Cone, 1
Tail Cover, 1
Tail De-Icer, 1
Tail Section, 3
Tail Wheel, 4
Take-Off, 7
Take-Off Speed, 3
Tank, 80
Tank Sealing, 1
Tank Selector Valve, 3
Target, 18
Target Date, 2
Taxiing, 14
Technical Service, 5
Temperature, 32
Temperature Indicator, 14
Template, 6
Terminals, 15
Test, 13
Test Flight, 5
Throttle, 11
Throttle Control, 3
Throttle Control Quadrants, 1
Time, 85
Tool Design, 32
Top Speed, 3
Torque, 19
Torquemeter, 6
Total Horsepower, 2
Tow, 19
Tow Bar, 1
Tow Target, 5
Tower, 3
Track, 3
Traffic, 45
Traffic Handling, 32
Trailing Edge, 1
Trainer, 28
Trainer Airplane, 5
Training Planner, 7
Transit, 38
Transit Time, 31
Transmitter, 31
Transport, 18
Transportation, 16
Travel, 23
Travel Orders, 12
Trip, 18
Trouble Shooting, 11

Turbine, 2
Turbo-Supercharger, 3
Turn and Bank Indicator, 1
Turn Indicator, 1

U

Upper Nose Cowl, 3

V

Valve, 71
Velocity, 8
Vent, 17
Vertical, 12
Vertical Auto-Pilot Pumps, 1
Vertical De-Icer, 1
Vertical Fin, 1
Via, 31
Visibility, 18

W

Wainscoting, 1
Way Station, 1
Weather, (21)
Weather Component, 3
Weather Forecast, 11
Weather Observation, 2
Weather Visibility, 5
Weight, 51
Weight Control, 7
Wheel, 41
Wheel Chock, 17
Wheel Well, 1
Wind, 41
Wind Direction, 16
Windshield, 7
Windshield De-Icer, 3
Wing, (47)
Wing-Attach Angle Doubler, 1
Wing De-Icer, 1
Wing Flap, 4
Wing Flap Operating Cylinder, 1
Wing Rib, 1
Wing Span, 2
Wing Section, 3
Wing Station, 1
Wing Tanks, 2
Wire, 18
Wobble Pump, 7

Z

Zone, 8

The fifth list contains the aviation terms, by themselves and in collocation, according to frequency occurrence. These aviation terms range from the highest frequency to the lowest frequency.

Frequency occurrence figures have been placed beside those aviation terms appearing 51 times or more in this count. Aviation terms occurring 50 times or less have been listed in this manner: The frequency occurrence figures have been placed three spaces in from the left margin, and any aviation terms appearing under the appropriate frequency occurrence figures have occurred that many times in this count.

Asterisks have been placed after aviation terms not found in the books designated as bases for recognition of aviation terms. (See footnote on page 43.)

Parentheses have been placed about those aviation terms found in the Meteorology Department.

Parentheses have been placed about the frequency occurrence figures of those aviation terms omitted because they occurred with such unusual frequency in this word-frequency count.

"Engineering" and "Meteorology" did not appear in collocation in this count, but were omitted because they appeared with such high frequency by themselves. They have been placed at the end of this list.

Footnotes are used in the following lists to simplify identification of the symbols used.

LIST V

AVIATION TERMS (FREQUENCY OCCURRENCE)

(See footnotes for identification of symbols)[1]

Air, (705)[a]	Airplane, (105)
Maintenance, (343)	Pilot, (101)
Flight, (278)	Nose, 99
Crew, (229)	Airline Maintenance, 98
Airline, (204)	Control, 93
Pressure, (201)	Fuselage, 91
Fuel, 187[b]	Injection, 89
Service, 185	Manifold, 88
System, 177	Time, 85
Landing, 175	Gage, 84
Station, 174	Position, 83
Engine, (172)	Station Maintenance, 83
Indicator, 161	Ground, 82
Operations, 161	Plane, (82)
Assembly, 150	Carburetor, 81
Aircraft, (136)	Lights, 81
Schedules, (132)	Tank, 80
Flap, 112	Fuel Injection, 79

[1a]Parentheses have been placed about the frequency occurrence figures of those aviation terms omitted from this word study because of their unusual frequency. These figures denote the number of times these aviation terms were found in collocation in this word-frequency count.

[b]Aviation terms designated with only the frequency occurrence figures were found that many times in this word-frequency count.

Flight Operations, 78
Airline Maintenance Training, 76
Propeller, 74
Gear, 71
Maintenance Training, (71)
Valve, 71
Hydraulic, 68
Overhaul, 67
Foreign Stations, 66
Gyro-, 66
Landing Gear, 65
Retractible, 65
Line Station, (61)
Line Station Maintenance, 61
Operations Flight, 59
Flight Schedules, 58
Speed, 58
Equipment, 57
Altitude, 56
Instrument, 56
Field, 55
Fuel Injection Engine, 55
Manifold Pressure, 54
Airplane Assembly, 53
Capacity, 51
Ignition, 51
Weight, 51
50[c]
Short Service
49
Cabin
Service Crews
48
Oil
Position Indicator
47
Wing (47)[d]
46
Approved Flight
Scheduled Flights
Struts
45
Accessories
Cover
Section
Traffic

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[c]Aviation terms occurring 50 times or less have been designated in this manner.

[d]Aviation terms designated in this manner are those omitted from this count because they occurred with such high frequency.

44

Passengers

Tail

43

De-Icer

Pumps

Reserve Tank

42

Carrier

Short Service Crews

41

Chamber

Cylinder (41)

Hub

Material

Ship

Wheel

(Wind)[e]

40

Design

Line Crews

Regulator

39

Cowl

Motor

Nose Gear

Program

38

Flying

Line Service

Transit

37

Aluminum

Arrival

Brakes

Compartment

Maintenance Supervision

36

Flap Position

35

Allowance

Climb

Plane Service

Storage

34

Covering

Indicator Needle

Plan

---

[e]Parentheses have been placed about the aviation terms found peculiar to the Meteorology Department.

Stores

33

(Fog)

Hours

Sump

32

Mount

Steering

Temperature

Tool Design

Traffic Handling

31

Air Carrier

Clearance

Climb Indicator

Functional System

Ignition System

Issue

Stabilizer

Transit Time

Transmitter

Via

30

Engine Overhaul

29

Feathering

Fins

(Maximum)

Performance

Starter

28

Load

Main

Piston

Project

Trainer

27

Air Flow

Bearing

High

26

Air Brakes

Blinker Light

Cross-Feed

Fabric

License

25

Boost

Electricity

(Forecast)

Hangar

Panel

Servicing

24

Alcohol

Cargo

Communication

Direction Indicator

Fan

Modification

Order

Scoop

Stability

23

Accident Report

Aircraft Functional System

Air Speed

Basic Electricity

Bulkhead

Cockpit

Meter

Relay

Travel

22

Airline Pilot

Basic Trainer

Charts

Cowl Flaps

Specifications

Stores Issue

21

Airport, (21)

Bank and Climb Indicator

Base

Bearings

Commercial Plane Service

Control System

Departure

Directional Gyro-

Ground Operations

Horsepower

Line Inspection

Passenger Capacity

Pattern

Pressure Regulator

Velocity

(Weather (21))[f]

20

Autosyn

Briefing

---

[f]Aviation terms thus designated show that they were omitted because they occurred with unusual frequency, and that they were found to be peculiar to the Meteorology Department.

19

Acceleration
Alignment
Auto-Pilot
Aviation
Beacon
Course
Cut-Away
Cylinder Head
Distance
Exhaust
Flap Assembly
Flap Position Indicator
Flight Crew
Fuel Pressure
Gyro-Pilot
Landplane
Mail
Pedestal
Position Indicator Transmitter
Ribs
Rudder
Separator
Structure
Torque
Tow

18

Acetylene
Aircraft Bearings
Air Transport
Auxiliary Equipment
Belly
Certificates
Combustion
Drift
Fire Wall
Foreign Airports
Lubricant
Needle Valve
Oxygen
Power
Process
Quadrant
Runway
Target
Transport
Trip
(Visibility)
Wire

17

Adjustable Pitch Propeller
Air-Driven

Air Weight

Apparatus

Bakelite

Bench Assembly

Canvas

Energy

Flap Indicator

Induction

(Log)

Pressure Fuel System

Ramp

Supercharger

Vent

Wheel Chock

16

Angle of Pitch

Beaching Crew

Body

Crew Compartment Bunks

Differential

Flare

Fluid

Ground Handling

Gyro-Control

Horizontal

Maneuver

Nose Cowl

Shipping Order

Transportation

(Wind Direction)

15

Aircraft Electricity

Airplane Structure

Airsickness

Airway, (15)

Booster Control

Civil Airway

Counter-Weight

Direct Fuel Injection

Direction Finder

Draft

Fuel Capacity

Glue

(Low)

Magnetic

Main Base

Maximum Cruising Range

Oil Tank

Passport

Pilot's Instrument Panel

Retract

Signal

Stewardess
Terminals

14

Alloy
Carburetor Engine
(Coefficient)
Commercial Airplane
Counter-Balance
Engine Overhaul Time
Feathering Propeller
Fuel Line
Landing Gear System
Manifold Fuel Pressure Gage
Pilot's Stations
Pressure Flap
Retraction
Screw
Taxiing
Temperature Indicator

13

Air Controls
Air Pressure
Climate
Compartment Bunks
(Humidity)
(Latitude)
(Longitude)
Mechanical
Operating Speed
Passenger Service
Pedal
Piston Rings
Profile
Right Fuel Tank
Supply

12

Air-Cooled Engine
Air Relay
Angle Section
Automatic Pilot
Commutator
Cut Out
Fuel Tank
Lock
Octane
Over-All Length
Plan View
Planner
Proofing
Propeller Hub
Reaction
Standby Plane

(Storm)
Travel Orders
Vertical

11

Actuator
Airplane Tail Assembly
Air Valve
Brace
Cabin Fan
Calibrate
Cargo Weight
Centigrade
(Cloudiness)
Crew Briefing
Cruiser
Engine Mount
Filter
Fire Extinguishers
Generator
Hydraulic System
Overflow
Panel Assembly
Shaft
Span
Tail Assembly
Throttle
Trouble-Shooting
(Weather Forecast)

10

Aeronautical Charts
(Altimeter)
Belly Compartment
Centerpiece
Collector Ring
(Clouds)
Electrical System
Landing Indicator
Liaison
Outboard
Parking
Spares

9

Air Scoop
Blade
Emergency Crews
Fairleads
Fire Wall Installation
Gasoline
Manifold Pressure Indicator

8

Air Valve Actuator
Calm

Canvas Bulkhead

Ceiling

(Cold Wave)

Control Pedestal

Exhaust System

Flange

Frame

Fuel Tank Vent

Governor

Gross Weight

Landing Field

Modification Crew

Parts

Rate of Climb

Retractible Landing Gear

Router

Velocity

Zone

7

(Absolute Pressure)

Accumulator

Airline Certificates

Air Speed Indicator

Automatic Pilot Mock-Up

Autosyn System

Beaching Gear

Bushings

Cabin Fairleads

Chocks

(Condensation)

Cowling

Crew Room

Distribution

Drag

Duct

Engine Ignition Analyzer

Express

Ferry

Fluid De-Icer

Fuel Pressure Gage

Gradient

(Ground Fog)

Immigration Authorities

Intake Valve

Life Raft Storage

Lubrication

Maneuverability

Nacelle

Nose Gear Brace

Radio

Run-Up

Skid

Spares Storage

(Storm Warning)

Sump Tank

Take-Off

Training Planner

Weight Control

Windshield

Wobble Pump

6

Absorption

Air Frame

Astrodome*[g]

Compression

(Degree)

De-Icer Fluid

Dock

Engine Control

Fairing

Glass

Grommets

Hull

Inboard

Layout

Lead

Magnosyn*

Outboard Engine

Template

Tachometer

Torquemeter

5

Abrasive

(Aerophare*)

Aft

Air Mail

Basic Load

Cabin Pressure Regulating System

Combustion Chamber

Controllable Pitch Propeller

Cylinder Head Temperature Indicator

Diaphragm

Embossing

Exhaust Manifold

Fire Control

Flashlight

Flight Plan

Fuel Flow Indicator

---

[g]Asterisks have been placed after aviation terms not found in the books designated as bases for recognition of aviation terms. (See footnote on page 43.)

Fuel Pressure Indicator
Ground Equipment
Heavy Landing Gear Struts
Life Jacket
(Magnetic Compass)
(Map)
Metal
Observation
Oil Temperature Regulator
Pilot Ratings
Plywood
Proving Flight
Scale
Separation
Technical Service
Test Flight
Tow Target
Trainer Airplane
(Weather Visibility)

4

Air-Cooled Cylinder
Aircraft Engine
Aircraft Heater
Airplane Fabric
Antenna
Approach Light
Balloon
Bank Indicator
Barometer
Block
Buffet
Cargo Handling
Centerpiece Section
Compass
(Compensation)
(Component)
Connecting Rod
Counter-Weight Propeller
Displacement
Dolly
Dope
Electrical Crews
(Evaporation)
Extension
Fabric Covering
Ferry Crew
Flap System
Flare Release
Friction
Fuel System
Glider
Hinge Seal

Ignition Time

Jacks

Landplane Service

Landmark Beacon

(Low Pressure)

(Low Pressure Area)

Main Landing Gear Struts

Octane Rating

Oil Pump

Outboard Side

Overhaul Shops

Pressurization

Propeller Blade

Propeller De-Icer Fluid

Release

Resin

Rudder Pedal

Sealing

Shimmy

Tail Wheel

Wing Flap

$\underline{3}$

(Absolute Temperature)

Accessory Drive Shaft

Adjustable Propeller

Aerial

Aircraft Fabric

Aircraft Wire

Air Express

Air Markers

Airplane Lights

Airport Traffic Control Tower

Alternate Autosyn

Auto-Pilot Bank and Climb Indicator

Auxiliary Fuel Tanks

Backwash

Balanced Surface

Battery

Blind Landing

Body Plan

Cabin Fan Motor

Cable

Cam

Cellophane

Center Rudder Tube

Change Crew

Clock

Clockwise

Command

Cone

Cowling Flaps
Cylinder Temperature Indicator
Deflection
Depression
Docking
Dump Chute
Fan Motor
Filter Installation
Fire Wall Panel
Flap Operating Cylinder
Floodlight
Fowling
Fuel Cross-Feed Shut-Off Valve
Fuel Service
Galley
Gasoline Tank
Governor Control
Gyrosyn*
Hangar Floor
(Haze)
Heating and Ventilating System
Heavy Wheel Retracting Cylinder
Horizontal Auto-Pumps
Horizontal Stabilizer
Hydraulic Pump
Identification Lights
Ignition Breaker
Inboard Corner
Inboard Engine
Intake Stroke
Instrument Landing
Instrument Panel
Jig
Kilometer
Landing Flaps
Landing Lights
Layout Drawing
Lift
Loudspeaker
Magneto
Main Cabin
Mast
Maximum Range
(Minimum)
Net Weight
Oil Filter
Oil Tank Vent
Orientation
(Overcast)
Overflow Scupper
Plastics
Power Stroke

Prime Meridian

Propeller Governor

Radiation

Radio Communication

Refueling

Scupper

Separator Bushings

Shellac

Shock Absorber

Signal Flare

Spar

Staking

Static

Strato-Cruiser

Suction

Tail Section

Take-Off Speed

Tank Selector Valve

Throttle Control

Top Speed

Track

Turbo-Supercharger

Upper Nose Cowl

(Weather Component)

Windshield De-Icer

Wing Section

2

(Absolute Humidity)

Acetate Dope

Aft Belly

Alternate Manifold Pressure Gage

Angle Template

Auto-Pilot Hydraulic System

Blade Angle

Blind Flying

Butterfly Valve

Bypass

Call-Pilots

Control Section

Control Weight

Co-Terminals

Cowl Flap Operating Cylinder

Deceleration

Defroster

Draft Release

Drift Indicator

Elevator

Emergency Flaps

Endurance

Engine Trouble-Shooting

Exhaust Valve

(Exposure)

Feathering Hub
Flashlight Storage
Flight Engineer's Panel
Galley Unit
Glide
Heavy Jack
Heavy Wheel Steering Accumulator
(Horizon)
Induction System
Injection Pumps
Landing Gear Retraction
Leading Edge
Magnetic Tachometer
Main Landing Gear
Modification-Oil Pressure Gage
Passenger Traffic Handling
Planning-Tow Target
Pressure Pattern Flying
Propeller Control
Propeller Section
Puralator
Quadrant Flap
Radar*
Radar Sondes*
Rate of Climb Indicator
Recognition Lights
Rigger
(Rowen*)
Safety Flare
Seaplane
Sondes
Stall
Stub-Wing
Target Date
Total Horsepower
Turbine
(Weather Observation)
Wing Span
Wing Tanks

1

(Absolute Altimeter)
(Absolute Altitude)
(Absolute Zero)
Absorption Process
Accessory Gear Train
Actualizing Strut
Actuating Nose Cylinder
Adjustable Stabilizer
(Aerometer)
Air Conditioner
Air Cooler
Aircraft Cable

Air Duct
Air Filter
Air Fuel Valve
Air Induction
Airline Hangar & Repair Shop
(Air Mass)
Air Temperature Indicator
(Aldis Lamp*)
Alternate Torquemeter
Altitude Gyro-
(Anemometer*)
(Anemostat)
Anti-Icer Fluid
(Astrocompass*)
Astrodome Defroster Line*
Automatic Direction Finder
Automatic Gyro-Pilot
Automatic Valve
Auto-Pilot Engine
Auto-Pilot Pump
Auto-Pilot Tank
(Backlog)
Bank and Climb Controls
Bank and Turn Indicator
Bank and Turn Needle Valve
Blade Section
Blind Landing Indicator
Block-in-Scoop
Blower
Booster Pump
Breaker Panel
Breaker Point
Breathing Oxygen Cylinder
Bypass Valve
Cabin Pressure Regulator
Cabin Pressurization
Camshaft
Cargo Plane
Cargo Plate
Clamshell
(Compass Compensation)
(Compass Component)
Compression Ignition Engine
Conduction
Contour
Control Wheel
Controllable Counter-Weight Propeller
Controllable Propeller
Cover Plate
Cross-Way

Air Duct
Air Filter
Air Fuel Valve
Air Induction
Airline Hanger & Repair Shop
(Air Mass)
Air Temperature Indicator
(Aldis Lamp*)
Alternate Torquemeter
Altitude Gyro-
(Anemometer*)
(Anemometer)
Anti-Icer Fluid
(Astrocompass*)
Astrodome Defroster Line*
Automatic Direction Finder
Automatic Gyro-Pilot
Automatic Valve
Auto-Pilot Engine
Auto-Pilot Pump
Auto-Pilot Tank
(Beefing)
Bank and Climb Controls
Bank and Turn Indicator
Bank and Turn Needle Valve

Blade Section
Blind Landing Indicator
Block-in-Scoop
Blower
Booster Pump
Breaker Panel
Breaker Point
Breathing Oxygen Cylinder
Bypass Valve
Cabin Pressure Regulator
Cabin Pressurization
Camshaft
Cargo Plane
Cargo Plate
Clamshell
(Compass Compensation)
(Compass Component)
Compression Ignition Engine
Conduction
Contour
Control Wheel
Controllable Counter-Weight Propeller
Controllable Propeller
Cover Plate
Cross-Way

Cured Flap
Declination
Defroster Line
De-Icer Vacuum Shut-Off Valve
Density
Depth Gage
Deviation
Direct Fuel Engine Pump
Directional Gyro-Control
Directional Gyro-Control Unit
Distributor Head
Divergence
Doped Surface
Double Flange
Doubler
Down Draft
Drain Tube Flange
Drift Pump
Drift Signal Flare
Dual Ignition System
Dual Flap Position Indicator
Dual Fuel Flow Indicator
Dual Tachometer
Duragage*
Electrical Main
Empennage
Empty Weight
Engine Fuel Selector Valve
Equator
Extension Break Valve
Fabric Equipment
Fahrenheit
Feathering Pump
Flap Indicator Needle
Flap Position Transmitter
Flapper Valve
Flare Release Fuse
Flight Indicator
Flowmeter Test Room
Forward Belly
Forward Sump
(Frost)
Fuel Group
Fuel Lag
Fuel Schedules
Fuel Time
Fuselage Strut Wing Piping
Gap
General Servicing
Glider Training
Grade
Gravity

Cured Ham
Decantation
Deforester Line
De-Icer Vacuum Shut-Off Valve
Density
Depth Gage
Deviation
Direct Fuel Engine Pump
Directional Gyro-Control
Directional Gyro-Control Unit
Distributor Head
Divergence
Doped Surface
Double Flange
Doubler
Down Draft
Drain Tube Flange
Drift Pump
Drift Signal Flare
Dual Ignition System
Dual Flap Position Indicator
Dual Fuel Flow Indicator
Duel Tachometer
Duralage
Electrical Main
Empennage

Empty Weight
Engine Fuel Selector Valve
Equator
Extension Break Valve
Fabric Equipment
Fanrenbelt
Feathering Pump
Flap Indicator Needle
Flap Position Transmitter
Flapper Valve
Flare Release Fuse
Flight Indicator
Flowmeter Test Room
Forward Belly
Forward Sump
(Frost)
Fuel Group
Fuel Lag
Fuel Schedules
Fuel Time
Fuselage Strut Wing Fitting
Gap
General Servicing
Glider Training
Grade
Gravity

Ground Speed

Ground Stations

Gusset

Gyro-Remote Indicator

Gyroscope

Hand Hydraulic Replenish Pump

(Head Wind)

Heavy Landing Gear

Heavy Rib

Heavy Wheel Steering Cylinder

Heavy Wheel Steering Valve

High Pressure Direct Fuel Injection Line

Horizontal Fin

Horizontal Fluid De-Icer

Hydraulic Fluid Reserve Tank

Hydraulic Lock

Hydraulic System Pressure Gage

Hydro-Air Fuel Valve

(Hydrometer)

Ice Lights

Increment

Inflow

Intake Manifold

Instrument Lights

Instrument Switches

Integral Fuel Tank

Interchamber Flap Position Indicator

Interphone Brackets

Kilowatt

Kilo-

King Post

Lacquer

Landing Gear and Flap Position Indicator

Landing Speed

Landing Weight

Left-Side Engine

Liquid-Cooled Engine

Locking Bar

(Logarithm Forms)

(Logarithm Sheets)

Magnitude

Main Engine Sump

Main Landing Gear Fulcrum Keys

Main Landing Wheels

Mandrel

(Mass)

Ground Speed

Ground Stations

Gusset

Gyro-Remote Indicator

Gyroscope

Hand Hydraulic Emplenish Pump

(Head Wind)

Heavy Landing Gear

Heavy Rib

Heavy Wheel Steering Cylinder

Heavy Wheel Steering Valve

High Pressure Direct Fuel Injection Line

Horizontal Fin

Horizontal Fluid De-Icer

Hydraulic Fluid Reserve Tank

Hydraulic Lock

Hydraulic System Pressure Gage

Hydro-Air Fuel Valve

(Hydrometer)

Ice Lights

Increment

Inflow

Intake Manifold (Mass)

Instrument Lights

Instrument Switches

Integral Fuel Tank

Interchamber Flap Position Indicator

Interphone Brackets

Kilowatt

Kilo-

King Post

Lacquer

Landing Gear and Flap Position Indicator

Landing Speed

Landing Weight

Left-Side Engine

Liquid-Cooled Engine

Locking Bar

(Logarithm Forms)

(Logarithm Sheets)

Magnitude

Main Engine Pump

Main Landing Gear Fulcrum Keys

Main Landing Wheels

Manifold

Master Gyrosyn*

(Maximum Thermometer)

Mechanical Convection

Mechanical De-Icers

Mechanical Stabilizer

(Mist)

Modification-Dual Flap Position Indicator

Modification-Interchamber Flap Position Indicator

Nadir

Net Bulkhead

Nose Gear-Brace Strut Collar

Observation Deck

Oil Temperature Gage

Overhand

Overhaul Time

Oxidizing Flame

Panel Separator Bushings

Piping

Pitot Tube

Plate

Plug Fowling

Pressure Gradient

Proof List

Propeller Governor Control

Propeller Shaft

Provisional Weight

Pyrotechnic Pedestal

Quenching

Radial Engine

Rear Sump

(Relative Humidity)

Release Fuse

Remote Indicator

Retractor Strut

Reversible Propeller

Rivet Gun

Roll Out

(Rowen Observers*)

Rudder Torque

Safety Flare Switch

Salvage Crew

(Saturation)

Screw Pitch Gage

Self-Aligning Bearings

Shimmy Damper

Shore

Snap Gage

Stall Handling

Master Gyrosyn*

(Maximum Thermometer)

Mechanical Convection

Mechanical De-Icers

Mechanical Stabilizer

(Mist)

Modification-Dual Flap Position Indicator

Modification-Interchamber Flap Position Indicator

Nadir

Net Bulkhead

Nose Gear-Brace Strut Collar

Observation Deck

Oil Temperature Gage

Overhand

Overhaul Time

Oxidizing Flame

Panel Separator Bushings

Piping

Pitot Tube

Plate

Plug Fowling

Pressure Gradient

Proof List

Propeller Governor Control

Propeller Shaft

Provisional Weight

Pyrotechnic Pedestal

Quenching

Radial Engine

Rear Sump

(Relative Humidity)

Release Fuse

Remote Indicator

Retractor Strut

Reversible Propeller

Rivet Gun

Roll Out

(Rowen Observers*)

Rudder Torque

Safety Flare Switch

Salvage Crew

(Saturation)

Screw Pitch Gage

Self-Aligning Bearings

Shimmy Damper

Shore

Snap Gage

Stall Handling

Stub-Wing Stabilizer
Suction Gage
Synchroscope
Tail Cone
Tail Cover
Tail De-Icer
Tank Sealing
Throttle Control Quadrants
Tow Bar
Trailing Edge
Turn Indicator
Turn and Bank Indicator
Vertical Auto-Pilot Pumps
Vertical De-Icer
Vertical Fin
Wainscoting
Way Station
Wheel Well
Wing-Attach Angle Doubler
Wing De-Icer
Wing Flap Operating Cylinder
Wing Rib
Wing Station

Engineering
Meteorology

The sixth, and last, list contains the 597 different words found in this word-frequency count. This list is in two parts--those words found in Dr. Thorndike's The Teacher's Word Book of 30,000 Words,[1] and those words which were not found in that same word list.

Only root forms have been listed. No derivative forms--plurals, past tenses, and the like, have been included.

Dr. Thorndike's plan has been followed somewhat, to designate into which of his frequency groups the different words in this count were found:[2]

1. The words under the heading (1-1,000) are in the first thousand (up to) for frequency.
   a. An asterisk has been placed beside the first five hundred most-frequently occurring words--(1-500).
   b. Those words without asterisks have been found in the next five hundred most-frequently occurring words--(501-1,000).

2. Those words appearing under the heading (1,000-) are approximately the first thousand for frequency.

3. Those marked (2,000-) are approximately the second thousand.

4. Those marked (3,000-) are approximately the third thousand.

5. Those marked (4,000-) are approximately the fourth thousand.

---

[1]E. L. Thorndike and Irving Lorge. The Teacher's Word Book of 30,000 Words. New York, Teacher's College, Columbia University, 1944.

[2]Ibid., p. x.

6. Those marked (5,000-) are approximately the fifth thousand.

7. Those marked (6,000-) are approximately the sixth thousand.

8. Those marked (7,000-) bring these words down through 7,055.

9. Those marked (7,056-) bring these words somewhat past 10,000 (to 10,285).

10. Those marked (10,286-) bring these words somewhere past the 10,285 word-mark.

A number sign has been placed beside those words found to be peculiar to the Meteorology Department.

Of the 597 different words found in this word-frequency count, 46 were found to be peculiar to the Meteorology Department--as determined by Dr. Thorndike's word list.[1]

The second part of this list contains the 78 different words not found in Dr. Thorndike's word list. Of these 78 different words, 12 were found to be peculiar to the Meteorology Department. Some of these 78 different words are combinations of words contained in the word list of Dr. Thorndike. However, they have been presented because a stenographer will have to know such words--as they are used in the aviation industry.

Footnotes are used to simplify identification of symbols.

---

[1]Thorndike and Lorge, op. cit.

6. Those marked (5,000-) are approximately the fifth thousand.

7. Those marked (6,000-) are approximately the sixth thousand.

8. Those marked (7,000-) bring these words down through 7,055.

9. Those marked (7,056-) bring these words somewhat past 10,000 (to 10,285).

10. Those marked (10,286-) bring these words somewhere past the 10,285 word-mark.

A number sign has been placed beside those words found to be peculiar to the Meteorology Department.

Of the 837 different words found in this word-frequency count, 46 were found to be peculiar to the Meteorology Department--as determined by Dr. Thorndike's word list.[1]

The second part of this list contains the 78 different words not found in Dr. Thorndike's word list. Of these 78 different words, 12 were found to be peculiar to the Meteorology Department. Some of these 78 different words are combinations of words contained in the word list of Dr. Thorndike. However, they have been presented because a stenographer will have to know such words--as they are used in the aviation industry.

Footnotes are used to simplify identification of symbols.

---

[1]Thorndike and Lorge, op. cit.

LIST VI (I)

THE 519 DIFFERENT WORDS FOUND IN THIS WORD-FREQUENCY COUNT AS DETERMINED BY DR. THORNDIKE'S WORD LIST[1]

(See footnotes for identification of symbols)[2]

(1-1,000)

Air *[a]
And *
Away *
Bank *
Body *
Call *
Center[b]
Change *
Cloud #[c]
Cold #
Command
Condition *
Cool
Control
Corner
Course *
Cover *
Cross
Cut *
Degree #
Direct
Direction
Distance
Double
Down *
Drive
Edge
Express
Field
Find *
Fire *
Floor
Foreign
Form #
Forward
General
Glass
Ground
Group
Hand *
Head *
Heat
Heavy
High *

---

[1] Thorndike and Lorge, op. cit.

[2a] An asterisk has been placed beside the first five hundred most-frequently occurring words--(1-500).

[b] Those words without asterisks have been found in the next five hundred most-frequently occurring words--(501-1,000).

[c] A number sign has been placed beside those words found to be peculiar to the Meteorology Department.

LIST VI (1)

THE SIX DIFFERENT WORDS FOUND IN THE MOST-FREQUENCY COUNT AS DETERMINED BY E.L. THORNDIKE'S WORD LIST[1]

(See footnotes for identification of symbols)[2]

(1-1,000)	Corner	Find *
Air *[a]	Course *	Fire *
And *	Cover *	Floor
Away *	Cross	Foreign
Bank *	Cut *	Form *
Body *	Degree *	Forward
Call *	Direct	General
Center[b]	Direction	Glass
Change *	Distance	Ground
Cloud *[c]	Double	Group
Cold *	Down *	Hand *
Command	Drive	Head *
Condition *	Edge	Heat
Cool	Express	Heavy
Control	Field	High *

[1] Thorndike and Lorge, op. cit.

[2] [a] An asterisk has been placed beside the first five hundred most-frequently occurring words--(1-500).

[b] Those words without asterisks have been found in the next five hundred most-frequently occurring words--(501-1,000).

[c] A number sign has been placed beside those words found to be peculiar to the Meteorology Department.

Hour *	Out *	System *
Ice	Part *	Take *
In *	Plan *	Top
Issue	Point *	Train
King *	Position	Travel
Land *	Post	Trip
Lead	Power *	Trouble
Left *	Prove	Turn *
Length	Report	Up *
Life *	Ring	View
Light *	Right *	Wall *
Line *	Roll	Wave #
Low * #	Room *	Way *
Man *	Run *	Weather #
Master	Service	Well *
Material	Shop	Weight
Mount	Shore	Wind * #
Nose	Short *	Wing
Of *	Station	(1,000-)[d]
Off *	Store	Base
Oil	Storm #	Flow
Order	Supply *	Fly

---

[d]These words are approximately the first thousand for frequency.

Hour *	Out *	System *
Ice	Part *	Take *
In *	Plan *	Top
Issue	Point *	Train
King *	Position	Travel
Land *	Post	Trip
Lead	Power *	Trouble
Left *	Prove	Turn *
Length	Report	Up *
Life *	Ring	View
Light *	Right *	Wall *
Line *	Roll	Wave *
Low *	Room *	Way *
Man *	Run *	Weather *
Master	Service	Well *
Material	Shop	Weight
Mount	Shore	Wind * *
Nose	Short *	Wing
Of *	Station	(1,000-)[g]
Off *	Store	Base
Oil	Storm *	Flow
Order	Supply *	Fly

[g]These words are approximately the first thousand for frequency.

Rate	Design	Motor
(2,000-)[e]	Drag	Net
Accident	Empty	Operation
Actual	Engine	Park
Approach	Feed	Passenger
Area	Flame	Pattern
Authorities	Flight	Plane
Balance	Frame	Plate
Bar	Governor	Process
Beach	Gun	Range
Blind	Handle	Rear
Block	Jack	Reserve
Breathing	Lag	Route
Briefing	Lamp	Scale
Bush	List	Section
Cabin	Load	Selector
Calm #	Lock	Self
Civil	Mail	Shock
Climb	Main	Shoot
Clock	Map #	Shut
Connect	Mass #	Speed
Deck	Metal	Stroke

[e]These words are approximately the second thousand for frequency.

Note	Design	Motor
(5,000-)[e]	Drag	Net
Accident	Empty	Operation
Actual	Engine	Park
Approach	Feed	Passenger
Area	Flame	Pattern
Authorities	Flight	Plane
Balance	Frame	Plate
Bar	Governor	Process
Beach	Gun	Range
Bind	Handle	Rear
Block	Jack	Reserve
Breathing	Leg	Route
Briefing	Lamp	Scale
Bush	Left	Section
Cabin	Load	Selector
Calm ¶	Lock	Self
Civil	Mail	Shock
Climb	Main	Shoot
Cloak	Map ¶	Shut
Connect	Mass ¶	Speed
Deck	Metal	Stroke

[e] These words are approximately the second thousand for frequency.

Surface	Commercial	Program
Tail	Crew	Project
Temperature	Cure	Proof
Test	Depth	Radio
Total	Draft	Relative #
Tower	Drain	Release
Track	Drift	Repair
Trail	Energy	Rib
Upper	Engineer	Rod
Wheel	Equipment	Seal
Wire	Fan	Signal
(3,000-)[f]	Feather	Snap
Absolute #	Frost #	Steer
Angle	Grade	Structure
Arrival	Instrument	Tool
Assembly	Mock	Traffic
Attach	Needle	Tube
Bench	Observation	(4,000-)[g]
Blade	Operate	Absorb
Capacity	Performance	Battery
Climate #	Pitch	Brakes
Collar	Pressure	Butterfly

[f]These words are approximately the third thousand for frequency.

[g]These words are approximately the fourth thousand for frequency.

Surface	Commercial	Program
Tail	Crew	Project
Temperature	Cure	Proof
Test	Depth	Radio
Total	Draft	Relative #
Tower	Drain	Release
Track	Drift	Repair
Trail	Energy	Rib
Upper	Engineer	Rod
Wheel	Equipment	Seal
Wire	Fan	Signal
(5,000-)[f]	Feather	Snap
Absolute #	Frost #	Steer
Angle	Grade	Structure
Arrival	Instrument	Tool
Assembly	Mock	Traffic
Attach	Needle	Tube
Bench	Observation	(4,000-)[g]
Blade	Operate	Absorb
Capacity	Performance	Battery
Climate #	Pitch	Brakes
Collar	Pressure	Butterfly

[f]These words are approximately the third thousand for frequency.

[g]These words are approximately the fourth thousand for frequency.

Cable	Oxygen	Altitude
Canvas	Pilot	Apparatus
Ceiling #	Pump	Balloon #
Communication	Reaction	Brakes
Compass #	Recognition	Cargo
Departure	Remote	Chart
Depression	Reverse	Counter
Distribution	Safety	Cylinder
Driven	Screw	Dock
Emergency	Shaft	Electrical
Exhaust	Stake	Electricity
Fabric	Stall	Elevator
Fowl	Tank	Engineering
Fuel	Transport	Extension
Glider	Transportation	Flag
Horizon #	Unit	Fog
Jacket	(5,000-)[h]	Gap
License	Accumulator	Gasoline
Mast	Adjustable	Glue
Mechanical	Airplane	Gravity
Mist #	Alcohol	Gross
Observer #	Allowance	Overflow

[h]These words are approximately the fifth thousand for frequency.

Cable	Oxygen	Altitude
Canvas	Pilot	Apparatus
Ceiling #	Pump	Balloon #
Communication	Reaction	Brake
Compass #	Recognition	Cargo
Departure	Remote	Chart
Depression	Reverse	Counter
Distribution	Safety	Cylinder
Driven	Screw	Dock
Emergency	Shaft	Electrical
Exhaust	Stake	Electricity
Fabric	Stall	Elevator
Fowl	Tank	Engineering
Fuel	Transport	Extension
Glider	Transportation	Flag
Horizon #	Unit	Fog
Jacket	(5,000-)n	Gap
License	Accumulator	Gasoline
Mast	Adjustable	Glue
Mechanical	Airplane	Gravity
Mist #	Alcohol	Gross
Observer #	Allowance	Overflow

---

nThese words are approximately the fifth thousand for frequency.

Prime #	Exposure	Aerial
Regulate	Ferry	Auto
Schedule	Flare	Aviation
Separation	Hinge	Basic
Switch	Inspection	Combustion
Taxiing	Latitude #	Dolly
Technical	Maintenance	Equator
Trainer	Maximum #	Filter
(6,000-)[i]	Meter	Friction
Alternate	Minimum #	Galley
Analyze	Panel	Gear
Automatic	Quench	Horizontal
Bearing	Span	Hull
Belly	Storage	Immigration
Blinker	Supervision	Magnetic
Buffet	Thermometer #	Plug
Carrier	Vertical	Scoop
Certificate	Warning #	Strut
Compensation #	Zero #	Target
Cruise	(7,000-)[j]	Tow
Dump	Absorption	Valve
Endurance	Accessory	Velocity #

[i]These words are approximately the sixth thousand for frequency.

[j]In this manner are the words brought down through 7,055.

Prime *	Exposure	Aerial
Regulate	Ferry	Auto
Schedule	Flare	Aviation
Separation	Hinge	Basic
Switch	Inspection	Combustion
Taxiing	Latitude *	Dolly
Technical	Maintenance	Equator
Trainer	Maximum *	Filter
	(6,000-)[1] Meter	Friction
Alternate	Minimum *	Galley
Analyze	Panel	Gear
Automatic	Quench	Horizontal
Bearing	Span	Hull
Belly	Storage	Immigration
Blinker	Supervision	Magnetic
Buffet	Thermometer *	Plug
Carrier	Vertical	Scoop
Certificate	Warning *	Strut
Compensation *	Zero *	Target
Cruise	(7,000-)[1]	Tow
Dump	Absorption	Valve
Endurance	Accessory	Velocity *

[1] These words are approximately the sixth thousand for frequency.

In this manner are the words brought down through 7,000.

Via	Haze #	Stub
(7,056-)[k]	Horsepower	Terminal
Aft	Installation	Transit
Alloy	Jig	Vacuum
Aluminum	Landmark	Vent
Beacon	Longitude #	(10,286-)[l]
Bracket	Magnitude	Acetylene
Breaker	Manifold	Acceleration
Bunk	Meridian #	Actuate
Collector	Modification	Align
Compartment	Pedestal	Alignment
Cone	Piping	Aircraft
Contour	Piston	Airline
Cowl	Profile	Airport
Cruiser	Raft	Antenna
Density	Replenish	Anti-
Dope	Rig	Auxiliary
Evaporation #	Rivet	Barometer #
Extinguisher	Rudder	Boost
Fin	Spar	Cam
Forecast #	Specifications	Carburetor
Fuse	Stability	Centigrade

---

[k]This grouping (frequency) brings these words somewhat past 10,000 (to 10,285).

[l]These words are brought somewhere past the 10,285 word-mark.

Via	Haze #	Stub
(7,056-)[k]	Horsepower	Terminal
Aft	Installation	Transit
Alloy	Jig	Vacuum
Aluminum	Landmark	Vent
Beacon	Longitude #	(10,286-)[l]
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Fin	Spar	Cam
Forecast #	Specifications	Carburetor
Fuse	Stability	Centigrade

[k]This grouping (frequency) brings these words somewhat past 10,000 (to 10,285).

[l]These words are brought somewhere past the 10,285 word-mark.

Chamber
Chock
Chute
Clearance
Cockpit
Coefficient #
Component #
Compression
Condensation #
Conduction
Cooler
Damper
Declination #
Deflect
Deviation #
Diaphragm
Differential
Displacement
Distributor
Divergence
Embossing
Fahrenheit
Flange
Flapper
Flashlight
Functional
Gage
Generator
Glide
Hangar
Heater
Humidity #
Hydraulic
Identification
Ignition
Increment
Indicator
Induction
Injection
Intake
Integral
Kilometer
Kilowatt
Lacquer
Layout
Liaison
Loudspeaker
Lubricant
Lubricate
Magneto
Maneuver
Marker
Overcast #
Overhaul
Oxidize
Pedal
Plastic
Propeller
Provisional
Quadrant
Radial
Radiation
Ramp
Rating
Relay
Resin
Retract
Salvage
Saturation #
Seaplane
Separator
Shellac
Skid
Stabilize
Standby

Chamber	Functional	Maneuver
Chock	Gage	Marker
Chute	Generator	Over-cast #
Clearance	Glide	Overhaul
Cockpit	Hangar	Oxidize
Coefficient #	Heater	Pedal
Component #	Humidity #	Plastic
Compression	Hydraulic	Propeller
Condensation #	Identification	Provisional
Conduction	Ignition	Quadrant
Cooler	Increment	Radial
Damper	Indicator	Radiation
Deflection #	Induction	Ramp
Deflect	Injection	Rating
Deviation #	Intake	Relay
Diaphragm	Integral	Resin
Differential	Kilometer	Retract
Displacement	Kilowatt	Salvage
Distribution	Lacquer	Saturation #
Divergence	Layout	Seaplane
Embossing	Liaison	Separator
Parameter	Loudspeaker	Shellac
Flange	Lubricant	Skid
Flapper	Lubricate	Stabilize
Flashlight	Magneto	Standby

Starter	Transmitter	Windshield
Static	Turbine	Wobble
Stewardess	Ventilating	Zone
Suction	Visibility #	
Throttle	Wainscot	

LIST VI (II)

THE 78 DIFFERENT WORDS FOUND IN THIS WORD-FREQUENCY COUNT NOT APPEARING IN DR. THORNDIKE'S WORD LIST[1]

(See footnotes for identification of symbols)[2]

Acetate[a]	Calibrate	Fuselage
Aerometer #[b]	Camshaft	Gradient
Aeronautical	Cellophane	Grommet
Aerophare #	Centerpiece	Gusset
Aldis #	Clamshell	Gyro-
Airsickness	Clockwise	Gyroscope
Airway	Cloudiness #	Gyrosyn
Altimeter #	Commutator	Hydro-Air
Anemometer #	Convection #	Hydrometer
Anemostat #	Deceleration	Inboard
Astrocompass #	Defroster	Inflow
Astrodome	De-Icer	Interchamber
Autosyn	Empennage	Interphone
Backlog #	Fairleads	Landplane
Backwash	Floodlight	Logarithm #
Bakelite	Flowmeter	Magnosyn
Bypass	Fulcrum	Mandrel

---

[1]Thorndike and Lorge, op. cit.

[2a]These aviation terms were found in the Maintenance Departments, and possibly the Meteorology Department.

[b]These aviation terms were found to be peculiar to the Meteorology Department.

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Aeronautical	Cellophane	Grommet
Aerophare ✻	Centerpiece	Gusset
Alidia ✻	Clamshell	Gyro-
Altocirrus	Clockwise	Gyroscope
Airway	Cloudiness ✻	Gyrosyn
Altimeter ✻	Commutator	Hydro-Air
Anemometer ✻	Convection ✻	Hydrometer
Aneroscat ✻	Decelleration	Inboard
Astrocompass ✻	Defroster	Inflow
Astrodome	De-Icer	Interchamber
Autosyn	Empennage	Interphone
Backlog ✻	Fairleads	Landplane
Backwash	Floodlight	Logarithm ✻
Bakelite	Flowmeter	Magnosyn
Bypass	Fulcrum	Mandrel

---

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Maneuverability

Meteorology

Nacelle

Nadir

Octane

Orientation

Outboard

Overhand

Pitot

Pressurization

Puralator

Plywood

Pyrotechnic

Radar

Rowen #

Runway

Scupper

Shimmy

Sonde

Strato-Cruiser

Sump

Supercharger

Synchroscope

Tachometer

Template

Torque

Torquemeter

Turbo-Supercharger

Maneuverability	Pumalator	Stratо-Cruiser
Meteorology	Plywood	Sump
Nacelle	Pyrotechnic	Supercharger
Nadir	Radar	Synchroscope
Octane	Rosen ϕ	Tachometer
Orientation	Runway	Template
Outboard	Scupper	Torque
Overhead	Sultry	Torquemeter
Pitot	Sonde	Turbo-Super-charger
Preservation		

CHAPTER V

SUMMARY AND RECOMMENDATIONS

The specific purpose of this word-frequency count was to set up a Gregg Shorthand Vocabulary to facilitate secretarial efficiency in the aviation industry. The previous chapter contains the results of this count.

This word-frequency count, conducted at the Pan-American World Airways, brought forth some interesting results.

It was particularly noted that most of the letters were of the single-spaced, indented, block-form type. The majority of these letters were indented five spaces.

Provision was made to record any aviation terms that were spelled unusually or wrongly. However, in conducting this count, no aviation terms were found to be spelled unusually or wrongly. The writer took the liberty of writing "gage," if this word was encountered and written as "gauge." Either is correct; but it was determined upon investigation of aviation dictionaries, cyclopedias, and manuals, that "gage" is used most often.

Provision was also made to record all abbreviations and contractions encountered in this word study of aviation terms. The only time that any such abbreviations or contractions were encountered, was when a listing was made of various jobs or positions being discussed in letters. Even this did not occur very often. There is a tendency in the business world

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Provision was also made to record all abbreviations and contractions encountered in this word study of aviation terms. The only time that any such abbreviations or contractions were encountered, was when a listing was made of various jobs or positions being discussed in letters. Even this did not occur very often. There is a tendency in the business world

to spell out everything. This tendency, evidently, has also carried over into the aviation industry.

Six lists have been presented. The first list presented the 20 aviation terms omitted in this count because they occurred with such unusual frequency.

The second list consisted of the supervisory titles in this aviation concern. No attempt was made to keep a record of occurrence of such titles whenever encountered in this count.

A stenographer ought to know the titles used in this specialized industry. As has been stated previously, a stenographer will probably use the titles of her specific department more than those of other departments. However, the administrative and personnel terminology should be known. This terminology, appropriately enough, will not vary exceedingly, if at all, in any aviation concern.

A separate list was made of some of the aviation concerns and agencies that rendered service to the aviation industry. A stenographer must have a knowledge of these aviation concerns and agencies, for they are being used constantly. This investigation of correspondence dictated by, and received by, this aviation concern revealed the necessity of having such knowledge.

The aviation terms encountered in this word-frequency count, by themselves and in collocation, were listed alpha-

betically, and in order of occurrence.

A list of the different words encountered in these aviation terms, as determined by Dr. Thorndike's word list,[1] was also presented.

This Gregg Shorthand Vocabulary contains the aviation terms by themselves, and as compounded for use in running composition (collocation). It was decided to present the vocabulary in this manner because a stenographer will use it as such in taking correspondence in aviation concerns.

As a result of this word-frequency count, 964 aviation terms, by themselves and in collocation, were found. Sixty-six (66) of these 964 aviation terms were found to be peculiar to the Meteorology Department. No attempt was made to distinguish between the Maintenance (Engineering and Training) Departments' terminology to determine the different aviation terms found in each.

The different aviation terms, by themselves and in collocation, listed in the Supervisory Title list were not included in this vocabulary. As has been stated previously, these titles were encountered with great frequency in the context of the letters being investigated, and more often at the bottom of the letters for distribution to the various departments and/or persons. These titles can be construed as

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[1] E. L. Thorndike and Irving Lorge. The Teacher's Word Book of 30,000 Words. New York, Teacher's College, Columbia University, 1944.

aviation terms because of their frequent usage in the aviation industry.

It should be mentioned that these titles were not included in this vocabulary because at times they were merely stamped on the letters--to show to whom they were to be distributed.

The results shown in Table II (See page 122) would have been obtained, if these titles had been included in this vocabulary. The 201 different supervisory titles in this aviation concern are presented in this table--by departments.

No attempt was made to determine into which of Dr. Thorndike's frequency groups[1] the aviation terms found in this Supervisory Title list were included. However, two words in this title list were not found in Dr. Thorndike's word list. They were "interline" and "WAC." Ninety-six (96) different words were encountered in this list of titles.

The aviation terms encountered in the list of aviation concerns and agencies were not included in this vocabulary. No record of occurrence was kept for these aviation concerns and agencies. Only some of them were recorded in this word-frequency count.

Thus it can be seen from Table II, that if these supervisory titles had been included as aviation terms, the total of aviation terms encountered in this word study would have

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[1]Thorndike and Lorge, op. cit. p. x.

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TABLE II

NUMBER OF AVIATION TERMS FOUND IN THIS WORD-FREQUENCY COUNT, AND THE AVIATION TERMS IN THE SUPERVISORY TITLE LIST

Departments	Number of Aviation Terms (Word-Frequency Count)	Supervisory Title List (Different Titles)
Maintenance - Engineering and Training Divisions	898	
Meteorology	66	
Executive		15
Operations		33
Maintenance		62
Airways Section		5
Traffic		28
Field		8
Service		23
Industrial Relations		7
Services of Supply		12
Communications		8
Totals	964	201
Grand Total		(1,156)

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Maintenance - Engineering and Training Divisions	899	
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Service		23
Industrial Relations		7
Services of Supply		12
Communications		8
Totals	964	201
Grand Total		(1,165)

been 1,156.

It behooves the aviation stenographer to have a basic working knowledge of such supervisory titles as have been presented. As has been stated above, these titles will not vary exceedingly, if at all, in any aviation concern.

The number of different words in these 964 aviation terms totalled 597. These different words were determined from Dr. Thorndike's word list.[1] These words have been tabulated according to Dr. Thorndike's frequency groupings,[2] and the departments in which they were found. The different words not found in any of the frequency groups presented by Dr. Thorndike have been included in this tabulation. (See Table III on page 124.)

Of the 519 different words found in these aviation terms, 473 were found in the Maintenance (Engineering and Training) Departments. Forty-six (46) of these different words were found to be peculiar to the Meteorology Department. Of the 78 different words not found in Dr. Thorndike's word list, 66 were found in the Maintenance Departments. The remaining 12 different words were found to be peculiar to the Meteorology Department.

Of the 597 different words found in this word-frequency

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[1]Thorndike and Lorge, op. cit.

[2]Ibid., p. x.

TABLE III

DIFFERENT WORDS (FREQUENCY GROUPS) FOUND IN THIS WORD-FREQUENCY COUNT AS DETERMINED BY DR. THORNDIKE'S WORD LIST

Dr. Thorndike's Frequency Groups	Different Words		Totals
	Maintenance Departments	Meteorology Department	
1- 500	48	2	50
500- 1,000	49	7	56
1,000-	4		4
2,000-	73	3	76
3,000-	45	4	49
4,000-	37	5	42
5,000-	32	2	34
6,000-	25	7	32
7,000-	24	1	25
7,056-	42	5	47
10,286	94	10	104
Totals	473	46	519
Different Words Not Found in Dr. Thorndike's Word List	66	12	78
Grand Totals	539	58	(597)

TABLE III

DIFFERENT WORDS (FREQUENCY GROUPS) FOUND IN THIS WORK-
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DR. THORNDIKE'S WORD LIST

Dr. Thorndike's Frequency Groups	Different Words		Totals
	Maintenance Department	Meteorology Department	
1- 500	48	2	50
500- 1,000	49	7	56
1,000-	4		4
2,000-	73	3	76
3,000-	45	4	49
4,000-	37	5	42
5,000-	32	2	34
6,000-	25	7	32
7,000-	24	1	25
7,058-	42	5	47
10,886	94	10	104
Totals	473	46	519
Different Words Not Found in Dr. Thorndike's Word List	66	12	78
Grand Totals	539	58	(597)

count, 415 occurred within the 10,000 (to 10,285) most-commonly used words, as determined by Dr. Thorndike's word list. Of these 597 different words, 104 occurred somewhere past the 10,286 frequency occurrence group. The 78 different words not encountered in the Thorndike word list are beyond any frequency groupings made by Dr. Thorndike.

It was noticed that the aviation industry draws heavily on the terminology of industries such as the automotive industry.

Many of these 964 aviation terms are technical terms encountered in other industries. Some of these aviation terms appear in the fundamentals of shorthand. However, the importance of noting them here is the number of times they have appeared in this count, by themselves and in collocation.

The finding of so many technical terms precludes a much wider vocabulary for the aviation stenographer. It will be noticed that the "true" aviation terms (terms peculiar only to the aviation industry) are encountered mainly in the listing of the various parts of airplane structures.

Actually, as determined by this count, not too many "true" aviation terms were dictated in aviation offices. A stenographer, after mastering the fundamentals of shorthand, must learn the technical terms (applicable to the aviation industry) as used in other industries.

No attempt was made to compare the results obtained in

this study with any specific aviation dictionary or aviation list set up for usage in Gregg Shorthand. The vocabularies in such books and lists have been subjectively determined.

It must be mentioned that 14 aviation terms were not found in the books designated as bases for the recognition of aviation terms. (See footnote on page 43.)

It is entirely probable that these books have not been brought up to date relative to such new terms (some introduced during the war) as "Radar," "Radar Sondes," and so forth.

The following statement by Rinsland sums up adequately the results obtained from this word-frequency count:[1]

> It is definitely consistent with psychology of individual differences and the common scientific observation that ranges objectively determined are almost always wider than those subjectively estimated.

As has been stated above, the results of this word-frequency count preclude a much wider vocabulary than has been estimated for the aviation stenographer.

The above has been a summary of the results as determined by this word-frequency count.

It was especially noted that the majority of these aviation terms occurred within the first ten-thousand most-

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[1]Henry D. Rinsland. A Basic Vocabulary of Elementary School Children. University of Oklahoma, 1945. New York, The MacMillan Company, 1945. p. 20.

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[1] Henry D. Rinsland. A Basic Vocabulary of Elementary School Children. University of Oklahoma, 1945. New York, The Macmillan Company, 1945. p. 20.

frequently used words. Many of the words that occur somewhere past this figure (frequency group) are technical terms.

It is recommended that after the basic fundamentals of Gregg Shorthand have been mastered, the technical terms (applicable to the aviation industry) be studied. This would mean that a basic vocabulary be learned of those industries rendering service to the aviation industry. Then the stenographer ought to specialize in learning the "true" aviation terms--those used primarily in explaining the various parts of the airplane. By then the stenographer will not have too much to learn. Now it remains for the stenographer to be drilled on collocations--compounding for running composition. Drill on common words, combined with technical and "true" aviation terms, will give the stenographer sufficient knowledge to step into an aviation office and render efficient service to her particular department in stenographic work.

The following are specific recommendations based on the results of this word-frequency count:

1. The stenographer ought to be trained on how to write certain numerals and letters combined, and by themselves, insuring facile transcription of the descriptions of aviation parts and planes.

2. The stenographer should have a knowledge of the symbols signifying aviation concerns and agencies.

3. A knowledge of distances (both large and small) in linear and metric measure is necessary. Aviation has encircled the globe. Many European countries use the metric system of measure.

4. The stenographer should have a thorough knowledge of the names of the aviation concerns and agencies that render service to the aviation industry.

5. The stenographer should have a knowledge of the systems of monetary exchange in these foreign lands. She will already have mastered the writing of the important foreign cities and countries.

Thus it is recommended that stenographers preparing to enter the aviation industry, to render efficient service, have a thorough knowledge of the fundamentals of Gregg Shorthand. They should have a knowledge of the technical terms (applicable to the aviation industry) used by the industries rendering service to the aviation industry. Stenographers should know the "true" aviation terms (parts of airplanes), and the various concerns and agencies rendering the aviation industry service.

The Horn list[1] is good for elementary shorthand. This is so because of the derivative forms listed. Most of the

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[1]Ernest Horn and Thelma Peterson. The Basic Vocabulary of Business Letters. New York, The Gregg Publishing Company, 1943.

3. A knowledge of distances (both large and small) in linear and metric measure is necessary. Aviation has encircled the globe. Many European countries use the metric system of measure.

4. The stenographer should have a thorough knowledge of the names of the aviation concerns and agencies that render service to the aviation industry.

5. The stenographer should have a knowledge of the systems of monetary exchange in these foreign lands. She will already have mastered the writing of the important foreign cities and countries.

Thus it is recommended that stenographers preparing to enter the aviation industry, to render efficient service, have a thorough knowledge of the fundamentals of Gregg Shorthand. They should have a knowledge of the technical terms (applicable to the aviation industry) used by the industries rendering service to the aviation industry. Stenographers should know the "true" aviation terms (parts of airplanes), and the various concerns and agencies rendering the aviation industry service.

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words included are of a general nature. Therefore, it is of especial value in the mastering of the simple derivatives.

The Thorndike list[1] was found more suitable for determining the different words found in the aviation terms obtained as a result of this word-frequency count. It includes many technical terms. Also, since the writer did not use derivative forms (not included in the Thorndike list), this list was of exceptional value.

As pointed out by Mr. Leslie, in another personal interview, more words than are absolutely necessary are herein contained. Only the first 500 words determined by this word-frequency count, therefore, are of real value. If more running words had been investigated, the results would have been of no more use to the aviation stenographer than the present list.

This Gregg Shorthand Vocabulary, determined objectively, is presented as a basic vocabulary of aviation terms to aid stenographers entering the specialized field of aviation. No attempt was made to produce a static vocabulary, insofar as the aviation industry is constantly growing.

This vocabulary will greatly aid shorthand teachers in building a functional aviation secretarial curriculum.

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[1]Thorndike and Lorge, op. cit.

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